

UNCLASSIFIED

AD 400 611

*Reproduced
by the*

ARMED SERVICES TECHNICAL INFORMATION AGENCY
ARLINGTON HALL STATION
ARLINGTON 12, VIRGINIA



UNCLASSIFIED

NOTICE: When government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related government procurement operation, the U. S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.

~~Patent~~
~~603~~

AERO PATENT DEPT.
MPLS.-HONEYWELL REG. CO.
MPLS. 13, MINN.

r & d management

400 611

ASTIA
RECEIVED
APR 9 1963
ASTIA

report



RB 63-1

January 1963

RESEARCH AND DEVELOPMENT MANAGEMENT

A Report Bibliography
1959 - 1962

Compiled by: C. S. Rank
C. S. Rank

Approved by: L. Bigelow
L. Bigelow
Library Manager

CONTENTS

Section I	Configuration Change Controls
Section II	Creativity
Section III	Developing Supervisors
Section IV	Engineering Administration
Section V	Management Information and Control Systems
Section VI	Planning and Scheduling of Research and Development
Section VII	Utilization of Professional Manpower
Section VIII	Author Index
Section IX	Subject Index

INTRODUCTION

This special bibliography was compiled by the staff of the Aeronautical Division Library at the request of O. H. Engen. The references cover the period 1959 - 1962, and were compiled from the following reference sources:

Aero Division Library Document Catalogs

Applied Science and Technology Index

Battelle Technical Review Abstracts

Business Periodicals Index

Engineering Index

While the titles to the various sections indicate their main content, to the exclusion of obviously allied subjects, no attempt has been made to be exhaustive. The selection of articles and books was arbitrary, based upon the parameters indicated in the bibliography request.

Therefore, while the range of subject treatment in the listed titles varies from popular and summary to quite technically complex, necessarily many fields have been included only to the extent of survey articles, with bibliographies listed for the use of those who wish to go further.

SECTION I

CONFIGURATION CHANGE CONTROLS

- 1 Acker, D. D.
Administration of the change control function.
ASME - 1961 Winter Annual Meeting, November 1961,
Paper 61-WA-130.
- 2 Athan, P., McCord, M.
RITE (Rapid Information Technique for Evaluation)
scans PERT.
Aerospace Mgmt. Vol. 5, No. 4, April 1962,
pp. 52-53.
- 3 Boot, C. G.
On trivial and binding constraints in programming
problems.
Mgmt. Sci. Vol. 8, No. 4, July 1962, pp. 419-441.
- 4 Brown, W. S.
Controls and procedures for product changes
after design release.
Mach. Des. Vol. 34, No. 5, March 1, 1962, pp. 112-117.
- 5 Charnes, A., Cooper, W. W.
Chance constraints and normal deviates.
Am. Stat. Assn. J. Vol. 57, No. 3, March 1962,
pp. 134-148.
- 6 Charnes, A., Cooper, W. W.
Chance constraint programming.
Mgmt. Sci. Vol. 6, No. 1, Oct. 1959, pp. 73-79.
- 7 Curry, R. M., McGivern, J. M.
A systematic approach to hardware management
(Project Champion)
Aerospace Corp. TDR-594 (1408) TR-1,
April 1, 1961, 83 p, (UNC).
AD 266443 (Lib. Acc. No. 13, 774)
- 8 Dantzig, G. B., Madansky, A.
On the solution of two-stage linear programming
under uncertainty.
Rand Corp. Rpt. No. RM-2751, Aug. 10, 1961. 30 p. (UNC)
AD 263219 (Lib. Acc No. 11, 871)

- 9 Elmaghraby, S. E.
Approach to linear programming under uncertainty.
Oper. Res. Vol. 7, No. 3, March 1959, pp. 208-216.
- 10 Fry, B. L.
How to use SCANS (Scheduling and Control by Automated Network System).
Aerospace Mgmt. Vol. 5, No. 11, Nov. 1962, pp. 26-29.
- 11 Garg, A., Milliman, P.
The aircraft progress curve - modified for design changes.
Jour. Indus. Engrg. Vol. 12, No. 1, Jan. - Feb. 1961.
pp. 23-28.
- 12 Madansky, A.
Methods of solution of linear programs under uncertainty.
Oper. Res. Vol. 10, No. 4, July - Aug. 1962, pp. 463-471.
- 13 Madansky, A.
Use of the "Expected value solution" in linear programming under uncertainty.
Rand. Corp. No. P-1939, Mar. 1960, (UNC).
- 14 Morris, W. T.
Decisions under uncertainty. In: Engineering economy, the analysis of management decisions.
Richard Irwin, Inc., Homewood, Ill. 1961, pp. 311-26.
- 15 Owens, W. R.
Support; problems in concurrent development and production.
Aerospace Eng. Vol. 20, No. 11, Nov. 1961, pp. 6-7.
- 16 Popovich, S.
Keeping design changes under control.
Aerospace Mgmt. Vol. 4, No. 12, Dec. 1961, pp. 38-43.
- 17 Schubert, A. E.
The art of living design changes.
ASME - 1962 Design Engrg. Conf., May 1962, Paper 62-MD-20.
- 18 Spivey, W. A.
Linear programming (one of several mathematical approaches to problems of optimal choice under constraint).
Science. Vol. 135, Jan. 5, 1962, pp. 23-27.

- 19 White, J. C.
Engineering drawing change control.
Graphic Science. Vol. 4, No. 2, Feb. 1962, pp. 22-6.
- 20 Wilson, W. K., Jr.
Change-order headaches will intensify (on missile and space-
probe projects).
Engrg. News. Vol. 167, Nov. 16, 1961,
pp. 124-5.

SECTION II

CREATIVITY

- 21 Anderson, H. H., ed
Creativity and its cultivation.
Harper & Bros., N. Y., 1959. 293 p.
- 22 Baker, S. S.
Your key to creative thinking, how to get more and
better ideas.
Harper & Bros., N. Y., 1962. 258 p.
- 23 Bradley, J. A.
The environment for creativity (Proc. of Industrial Res.
Inst. Study Group Meetings). Res. Mgmt. Vol. 3, No. 2,
Summer 1960, pp. 97-122.
- 24 Brown, A. E.
Creative scientists & their stimulation in research laboratories.
Soc. of Cosmetic Chemists, Journal. Vol. 12, No. 8,
Nov. 1961, pp. 417-24.
25. Brown, A. E.
Creativity can be stimulated.
Chem. & Engrg. News. Vol. 38, No. 43, Oct. 24, 1960,
pp. 102 + .
- 26 Brown, D. A.
Compensating the innovator.
Ind. Res. Vol. 4, No. 2, Feb. 1962, pp. 20-24.
- 27 Corson, J. J.
Innovation challenges conformity.
Harv. Bus. Rev. Vol. 40, No. 3.
May-June 1962, pp. 67-74.

- 28 Crane, H. R.
Creative thinking & experimenting.
Am. J. Phys. Vol. 28, No. 5., May 1960, pp. 437-43.
- 29 Creativity: key to continuing progress.
AMA Mgmt. Bull. No. 4
Amer. Mgmt. Assoc., N. Y., 1960, 27 pp.
- 30 Don't neglect reading outside your field.
(Maximum opportunity for creativity provided
by cross-fertilization of ideas).
Chem. Processing. Vol. 24, No. 12, Dec. 1961,
pp. 25 + .
- 31 Dreyfack, G. G.
How to get ideas from an idea man. (Creativity
evaluation program).
Mgmt. Methods. Vol. 18, No. 6, June 1960, pp. 44-6.
- 32 Durfee, R. A., Brophy, A. L.
How to stifle creativity.
Personnel. Vol. 38, No. 7, July 1961, pp. 63-6.
- 32 Emmerglick, L. J.
Open vision in science (method to stimulate creativity
in research scientists).
Main Currents in Modern Thought, Vol. 18, No. 3.,
Jan. - Feb., 1962, pp. 51-4.
- 34 Gammon, H. M.
Creativity - engineering hidden asset.
Cutting tool Engrg. Vol. 14, No. 1,
Jan. 1962, pp. 10-13
- 35 Gammon, H. M.
Some practical techniques for increasing creativity in
engineering.
Plant. Vol. 21, No. 2, Feb. 1960, pp. 25-7.
- 36 Gardner, C. W.
Ideas through pyramiding.
SAE - Paper No. 277A, Jan. 1961, 5 pp.
abst. SAE J. Vol. 69, No. 2, Feb. 1961, pp. 26-7.
- 37 Gershinowitz, H.
Sustaining creativity against organizational pressures.
Res. Mgmt. Vol. 3, No. 1, Spring 1960, pp. 49-56.
- 38 Glass, S. J.
Creative thinking can be released and applied.
Personnel J. Vol. 39, No. 5, Oct. 1960, pp. 176-7.

- 39 Goldner, B. B.
The strategy of creative thinking.
Prentice Hall, Inc., N. J. 1962, 256 pp.
- 40 Haefele, J. W.
Creativity & innovation.
(Reinhold Mgmt. Ref. Series).
Reinhold, N. Y., 1962, 306 pp.
- 41 Harris, R. H.
How to stimulate innovation in design.
ASME - Design Engrg. Conf. May 1962
Paper 62-MD-32.
- 42 Harris, R. H.
The creative skill.
Mech. Engrg. Vol. 84, No. 10, Oct. 1962,
pp. 39-41.
(Condensed from ASME - Paper 62-MD-32
ASME Design Engrg. Conf., May 1962,
Chicago, Ill.).
- 43 Hinrichs, J. R.
Creativity in industrial scientific research;
a critical survey of current opinion, theory
and knowledge.
AMA Management Bull. No. 12, AMA, 1961, 39 pp.
- 44 How to mass produce creativity.
Mgmt. Methods. Vol. 19, No. 2, Feb. 1961, pp. 52-4.
- 45 Jackson, H. J.
Intuitive engineering.
Product. Engrg. Vol. 32, Dec. 11, 1961, pp. 64-5.
- 46 Kaplan, W.
Some organizational factors affecting creativity.
IRE - Trans. Engrg. Mgmt. Vol. EM-7, No. 1,
Mar. 1960, pp. 24-30.
- 47 Keene, J.
How to spot creative talent.
Chem. Engrg. Vol. 69, June 25, 1962, pp. 134 + .
- 48 Kilgore, L. A.
Creative engineering: an engineer's viewpoint.
Westinghouse Engrg. Vol. 20, Sept. 1960, pp. 136-9.
- 49 Logan, A. L.
Creating creativity in your employees.
ASME - 1961 Sum. Ann. Meeting.
Paper 61-SA-61.

- 50 McCrory, R. J.
Evaluating creativity in engineers.
Proc. Ohio State Conf. on Progressive
Engring Personnel Policies, Ohio State
Univ: Engrg. Station. Dec. 1959, pp. 45-9.
- 51 McCrory, R. J.
Reflections on creativity.
Battelle Tech. Rev. Vol. 7, No. 1,
Jan. 1958, pp. 7-11.
- 52 Mears, B. B.
Stimulating creativity in research & development.
Research Mgmt. Vol. 4, No. 2, Summer 1960, pp. 147-52.
- 53 Messick, W. L.
Exploiting untapped employee potential.
Personnel Journal. Vol. 4, No. 9,
Oct. 1962, pp. 438-40.
- 54 Middendorf, W. H.
The climate for invention.
Insulation. Vol. 6, No. 11,
Nov. 1960, pp. 19-22.
- 55 Mohrman, H. W.
Industrial research management & creativity.
Royal Australian Chem. Inst. Proc. Vol. 28,
May 1961, pp. 173-8.
- 56 Oriel, A. E.
Environmental factors & research creativity.
Nat'l. Electronics Conf. Proc. Vol. 14,
1958, pp. 928-35.
- 57 Parnes, S. J., Harding H. F. eds.
A source book for creative thinking.
Scribners, N. Y., 1962, 393 pp.
- 58 Pearson, D. S.
Creativeness for engineers.
Edwards Bros., Ann Arbor, Mich. 4th ed.
1961, 159 pp.
- 59 Purdy, D. L.
Stimulating intellectual inquisitiveness.
Proc. Ohio State Conf. on Progressive
Engrg. Personnel Policies. Ohio State
Univ. Engrg. Exper. Station. Dec. 1959,
pp. 31-6.
- 60 Raudsepp, E.
Barriers to creativity.
Mach. Des. Vol. 34, No. 12, May 24, 1962, pp. 138-43.

- 61 Raudsepp, E.
On becoming more creative.
Mgmt. Rev. Vol. 48, No. 8,
Aug. 1959, pp. 9-13.
- 62 Raudsepp, E.
Climate for creativity.
Mach. Des. Vol. 32, No. 15,
July 21, 1960, pp. 122-30.
- 63 Raudsepp, E.
Exercise your imagination: these tests, based
on new research, can help you achieve more
creativity.
Nations Business, Vol. 50, No. 5,
May 1962, pp. 72-4.
- 64 Raudsepp, E.
How to boost idea power: study finds different
style of leadership is needed to get most from
creative people.
Nations Bus. Vol. 49, No. 1, Jan. 1961, pp. 74-8.
- 65 Radusepp, E.
How to make yourself more creative.
Mgmt. Methods. Vol. 20, No. 7, July 1961,
pp. 38-40.
- 66 Raudsepp, E.
The major barrier to creativity in industrial
laboratories.
Electro. Mech. Design. Vol. 4, No. 2,
Feb. 1960, pp. 44-7.
- 67 Raudsepp, E.
Problem solving.
Mach. Design. Vol. 34, No. 26,
Nov. 8, 1962, pp. 128-31.
- 68 Raudsepp, E.
Should engineers receive special pay for
patentable inventions
Mach. Design. Vol. 34, No. 27,
Nov. 22, 1962, pp. 126-8.
- 69 Raudsepp, E.
Supervisor determines productivity of creative people.
Amer. Busns. Vol. 30, No. 4, April 1960, pp. 30-2.
- 70 Raudsepp, E.
Top management sets pace for creative research.
Indust. Lab. Vol. 10, No. 4, April 1959, pp. 37-8.

- 71 Reich, I.
Creativity in research organizations.
Research Mgmt. Vol. 3, No. 4,
Winter 1960, pp. 217-25.
- 72 Renck, R., Livingston, C. W.
Developing creative-inventive ability.
Nat'l. Electronics Conference, 1961 Proceedings.
Vol. 17, Oct. 9, 1961, pp. 131-7.
- 73 Ryder, F. L.
Creative engineering analysis.
(Prentice-Hall Elec. Engrg. Series)
Prentice-Hall, Englewood, N. J. 1961 281 pp.
- 74 Shepard, H. A.
Major researches in creativity.
Res. Mgmt. Vol. 2, No. 4, Winter 1959.
pp. 203-20.
- 75 Stafford, P. M.
Creative imagination.
Petrol. Mgmt. Vol. 34, No. 3,
March 1962, pp. 22-3.
- 76 Starr, C.
Managing for creativity.
Res/Dev. Vol. 12, No. 10,
Oct. 1961, p.25.
- 77 Stevens, R.
Loss of creativity called management's fault.
Mach. Des. Vol. 33, Sept. 28, 1961, p. 15.
- 78 Swann, W. F. G.
Creative intuition in engineering science.
In: Planning ahead for Profits. pp. 156-72
AMA, Mgmt. Rep. No. 3, Res. & Devel. Div. 1958.
- 79 Tangerman, E. J.
Creativity - the facts behind the fad.
Prod. Engrg. Vol. 30, No. 34,
Aug. 24, 1959, pp. 20-3.
- 80 Tangerman, E. J.
Creativity: what is it?
Prod. Engr. Vol. 32, Dec. 11, 1961, pp. 63-5.
- 81 Tangerman, E. J.
Creativity: a new appraisal.
Prod. Engr. Vol. 31, No. 51,
Dec. 12, 1960, pp. 79-81.

- 82 Thorner, M. W.
Creativity and the environment of industrial research.
In Human Relations in Industrial Research Management.
Columbia Univ. Press, N. Y., 1957, pp. 301-8.
(Lib. No. 607 C72, 1955-6).
- 83 Vernon, H. C.
Managing for creativity in engineers.
ASME-AMA-Engineering Mgmt. Conf. Sept. 1961,
N. Y. - Paper 61-Mgt. -4.
Absts. in Jour. of Metals. Vol. 13, No. 11,
Nov. 1961, p. 836.
- 84 Walkup, L. E.
Individual creativity in research.
Nondestructive Testing. Vol. 18, No. 4.
July-Aug. 1960, p. 236 +.
Same title - Battelle Tech. Rev. Vol. 7, No. 8,
Aug. 1958, pp. 3-8.
- 85 White, C. M.
Effective leadership induces creative group thinking.
Petrol. Engr. Vol. 32, May 1960, pp. E4-E5.
- 86 Williams, L. A.
New ideas through individual initiative.
SAE - Paper 277B, Jan. 1961, 8 pp.
- 87 Williamson, M. A.
Decentralization - new road to creativity.
Res/Dev. Vol. 12, No. 8, Aug. 1961, pp. 16-25.
- 88 You too can create, if (instructive approach to innovation).
Electronic Design. Vol. 7, No. 17, Aug. 19, 1959, pp. 58-60.

SECTION III

DEVELOPING SUPERVISORS

- 89 Adams, E. L. Jr.
Total training for top executive pressures.
Adv. Mgmt. Vol. 24, June 1959, pp. 8-10.
- 90 Allen, L. A.
Wanted - science of management organization.
Adv. Mgmt. Vol. 24, No. 1, Jan. 1959, pp. 21-4.

- 91 Alston, A. S.
Organization of a training program (for supervisors
and managers).
Office Exec. Vol. 34, Mar. 1959, pp. 19-20.
- 92 Andrews, K. R.
Reaction to university development programs.
(As reported by more than 6000 executives who
went back to school.)
Harv. Bus. Rev. Vol. 39, No. 3, May-June 1961.
pp. 116-134.
- 93 Are executive training courses over-rated?
(Top management forum.)
Ind. Mkting. Vol. 47, No. 1, Jan. 1962, pp. 118-9.
- 94 Are you creative?
Dun's Rev. & Mod. Ind. Vol. 79, No. 5, May 1962, p. 63 +.
- 95 Argyris, C.
Organizational health and executive development.
Adv. Mgmt. Vol. 24, No. 12, Dec. 1959, pp. 8-11.
- 96 Argyris, C.
Puzzle & perplexity in executive development.
Personnel Jour. Vol. 39, No. 4, April 1961, pp. 463-5.
- 97 Atwood, J. L.
Development of Engineer - Managers in defense industry.
ASME - Paper 59-Mgt. -5 for meeting Sept. 1959, 21 pp.
- 98 Bass, B. M.
Management training laboratory, a way to improve
organizational effectiveness.
Adv. Mgmt. Vol. 25, No. 7, July 1960, pp. 11-15.
- 99 Bellows, R.
The challenge to tomorrow's executive.
Adv. Mgmt. Vol. 25, April 1960, pp. 6-10.
- 100 Benson, J. J., DeWitt, R. L.
Ones that got away (valuable top managers).
Mgmt. Rev. Vol. 51, No. 1, Jan. 1962, pp 56-61.
- 101 Bentzen, E. C.
Forming effective supervisory development programs.
Adv. Mgmt. Vol. 25, No. 8, Aug. 1960, pp. 21-3.

- 102 Bienvenu, B. J.
What kind of training for tomorrow?
Personnel, Vol. 38, No. 6, Nov. - Dec. 1961, pp. 8-17.
- 103 Blansfield, M. G.
Managers in wonderland: confusions and contradictions in
executive development.
Mgmt. Rev. Vol. 49, Oct. 1960, pp. 9-13.
- 104 Blansfield, M. G.
The untimely passing of management development.
Personnel J. Vol. 39, No. 10, March 1961, pp. 404-8.
- 105 Bott, R. P.
Make management training count.
Chem. Engr. Vol. 6, June 26, 1961, pp. 146-7.
- 106 Bowles, W. J.
Mismanagement of supervisory training.
Personnel. Vol. 38, No. 3, Mar. 1961, pp. 50-7.
- 107 Bradshaw, F. F.
Developing managerial abilities (in engineers).
ASME - Paper 59-Mgt. -1.
Also in Mech. Eng. Vol. 82, No. 1, Jan. 1960, pp. 29-30.
- 108 Bramley, D. H.
Preparing the engineer for management.
Engineering, Vol. 191, Mar. 24, 1961, p. 411.
- 109 Brown, R. E.
The art and science of administration.
Admin. Mgmt. Vol. 22, No. 7, July 1961, pp. 24-30;
No. 8, Aug. 1961, pp. 18-22; and No. 10, Oct. 1961, pp. 50-3.
- 110 Brown, R. E.
Effective administration requires seven objectives.
Amer. Busns. Vol. 29, Dec. 1959, pp. 17-20.
- 111 Burns, J. E., Zink, K. W.
Engineer as a corporate manager.
Advanced Mgmt. Vol. 26, No. 12, Dec. 1961, pp. 4-7.
- 112 Bush, V.
The managerial profession.
Industrial Devel. Vol. 130, No. 4, Apr. 1961, pp. 6-9.

- 113 Butler, J. J.
The executive inventory. How to succeed in
succession.
Admin. Mgmt. Vol. 23, No. 5, May 1962, pp. 50-2.
- 114 Caleo, R. L.
Modern training techniques.
Admin. Mgmt. Vol. 23, No. 4,
April 1962, pp. 27-33.
- 115 Campbell, I. comp.
Teaching machines: a bibliography.
Teaching Materials Corp. N. Y. 1962, 27 pp.
- 116 Caskey, C. C.
How to grow as a manager.
Supervision. Vol. 24, June 1962, pp. 4-6.
- 117 Christian, W.
Private tutor for business - teaching machines.
Busns. Automation. Vol. 7, No. 2, Feb. 1962.
pp. 26-31.
- 118 Clay, H. H., Olsen, L. O.
Internships in the development of people.
Personnel Jour. Vol. 40, June 1961,
pp. 58-63 Nov. 1961, pp. 26-9.
- 119 Clay, H. H. Olsen, L. O.
Some dogmas of development: facts or fallacies?
Personnel Admin. Vol. 24, No. 5, May 1961, pp. 41-4.
- 120 Clifford, R.
How Conoco teaches leadership fast.
Hydrocarbon Proc. & Petr. Refiner.
Vol. 40, No. 10, Oct. 1961, pp. 205-7.
- 121 Coe, R. S.
Common sense in manager development.
Adv. Mgmt. Vol. 24, Nov. 1959, pp. 24-6.
- 122 Cohen, K. J., Phenman, C.
The role of management games in education &
research.
Mgmt. Sci. Vol. 7, No. 2, Jan. 1961, pp. 131-66.
- 123 Collett, M. M.
Simulation as a management development tool.
Personnel Adm. Vol. 25, No. 3, Mar. 1962, pp. 48-51
- 124 Collins, J.
Lets' gear management development to corporate
realities.
Office Mgmt. & Amer. Bus. Vol. 22, No. 1,
Jan. 1961, pp. 23-5.

- 125 Craft, C. L., Stewart, L. A.
Competitive management simulation.
Journ. of Indust. Engrg. Vol. 10, No. 5,
Sept. - Oct. 1959, pp. 355-63.
- 126 Daffern, G. N.
Management development in changing world: Review.
Railway Age. Vol. 149, Dec. 12, 1960, pp. 42-3.
- 127 Dill, W. R., Hilton, T. L., Reitman, W. R.
The new managers: Patterns of behavior & development.
Prentice-Hall, Inc., N.J., 1962, 258 pp.
- 128 Education for management: vague advance.
Economists. Vol. 195, April 2, 1960, pp. 25-6.
- 129 Eitingen, J. E.
Management development & the back door.
Personnel Adm. Vol. 23, No. 1,
Jan. 1960, pp. 44-9.
- 130 Elliot, J. M.
Checklist for auditing the management development
program.
Personnel Vol. 38, No. 7, July 1961, pp. 80-3.
- 131 Exton, W.
Enlargement of managerial capacity - a new
approach to manager development.
Adv. Mgmt. Vol. 24, May 1959, pp. 14-8.
- 132 Falk, R.
The business management.
Penguin Books, Baltimore, Md., 1961, 251 pp.
- 133 Famularo, J. J.
Supervisors in action (Developing your skills
in managing people).
McGraw-Hill, N. Y., 1961, 238 pp.
- 134 Fielden, J.
Educating tomorrow's executives (cross-section of
executive thinking).
Harv. Bus. Rev. Vol. 38, No. 6, Nov. 1960, pp 6-8.
- 135 Fisher, N.
Making of a manager.
Personnel. Vol. 38, No. 9, Sept. 1961, pp. 8-15.
- 136 Fitchthorn, W. H.
Simulation; a new tool for management education.
Systems & Proc. Mag. Vol. 12, No. 1,
Jan. 1961, pp. 8-17.

- 137 Five steps to better supervisory training
(Temco Aircraft Co.)
Factory. Vol. 118, April 1960, pp. 196-7.
- 138 Foreman, Welford, Verity, Ohmann
Developing managers for decentralized operations;
roundtable discussion.
Mgmt. Record. Vol. 22, No. 4, April 1960, pp. 19-30.
- 139 Gabriel, H. W.
Techniques of creative thinking for management.
Prentice-Hall, Englewood, N.J., 1961, 199 pp.
- 140 Gardiner, G., et al
Managerial skills for supervisors
Elliott Service Co., Mount Vernon, N.Y.
1959, 142 pp.
- 141 Geisler, M. A., Steger, W. A.
How to plan for management in new systems.
(Game-simulation approach).
Harv. Bus. Rev. Vol. 40, No. 5.
Sept. - Oct. 1962, pp. 103-10.
- 142 Gillen, R. L., Hubben, H.
Motivating the boss. The key to executive
development.
Busns. Horizons. Vol. 3, No. 3
Fall 1960, pp. 49-54.
- 143 Goetz, B. E., Bennis, W. G.
What we know about learning & training.
(Implications for business education).
Personnel Adm. Vol. 25, No. 3,
Mar. 1962, pp. 20-9.
- 144 Gordon, P. J.
Heuristic problem solving - you can do it.
Business Horizons. Vol. 5, No. 1
Spring 1962, pp. 43-53.
- 145 Gordon, W. J. J.
Synectics; the development of creative capacity.
Harper & Bros., N.Y. 1961, 180 pp.
- 146 Grant, A. A.
Self-training in engineering management.
Civil Engr. Vol. 29, No. 7
July 1959, pp. 470-1.
- 147 Greenleaf, R. K.
A forward look at management development.
IRE - Trans. Eng. Mgmt. Vol. EM-6, No. 1,
Mar. 1959, pp. 19-30.

- 148 Gruenfeld, L. W.
Selection of executives for a training program.
Personnel Psych. Vol. 14, Winter 1961, pp. 421-31.
- 149 Handy, J. L.
Staffing a growth program.
In planning ahead for profits, pp. 147-55.
AMA Mgmt. Rep. No. 3, Res. & Devel. Div. 1958.
- 150 Hart, W.
Management development is not just a program.
Adv. Mgmt. Vol. 24, No. 4, April 1959, pp. 9-10.
- 151 Henderson, J. J.
Inside view of foreman training.
Engrg. Vol. 193, June 20, 1962, p. 837
- 152 Heyel, C.
Organizing your job in management.
Amer. Mgmt. Assoc., N.Y. 1960, 208 p.
- 153 Hildebrandt, H. W.
Supervisor as a conference participant.
Supervisory Mgmt. Vol. 7, No. 7,
July 1962, pp. 48-9.
- 154 Hoelscher, L. B.
You can't train your supervisors.
Safety Mainten. Vol. 123, No. 5,
May 1962, pp. 10-2.
- 155 Hoslett, S.
Executive training; outside or inside?
Am. Busns. Vol. 29, No. 6,
June 1959, pp. 17-19.
- 156 How not to be autocratic is AMA course topic.
Steel. Vol. 150, April 2, 1962, pp. 103-4.
- 157 Hulme, R. D.
Fifteen ways to develop managers.
Mgmt. Methods. Vol. 16, No. 8,
Aug. 1959, pp. 61-4.
- 158 Jenks, J. M.
Development of middle management executives.
Adv. Mgmt. Vol. 25, Mar. 1960, pp. 23-5.
- 159 Johnson, T. H.
Lets get management development back on the track.
Mgmt. Rev. Vol. 49, June 1960, pp. 16-22.

- 160 Joiner, F.
What's wrong with supervisory training?
Personnel, Adm. Vol. 24, No. 3,
Mar. 1961, pp. 47-9.
- 161 Kahane, B. B.
Predicting the value of university training
programs for management.
Personnel J. Vol. 41, No. 6,
June 1962, pp. 293-4.
- 162 Kellner, A. D.
On-job training: Fertile ground for managers.
Personnel Jour. Vol. 40, No. 7,
Dec. 1961, pp. 294-7, 309.
- 163 Kepner, C. H., Tregoe, B. B.
Developing decision makers.
Harv. Bus. Rev. Vol. 38, No. 5,
Sept./Oct. 1960, pp. 115-24.
- 164 Kirkpatrick, F. H.
New goals for management development.
Steel. Vol. 150, Mar. 12, 1962, pp. 49-52.
- 165 Korman, A. K., Jerdee, T. H.
Evaluation of training (in management development).
Personnel J. Vol. 38, No. 9, Feb. 1960, pp. 344-5.
- 166 Krugman, H. E.
Management development training; who profits most?
Personnel. Vol. 36, May 1959, pp. 59-62.
- 167 Kukic, Z.
Training managers in decision making through
simulation.
In simulation & gaming, a symposium
AMA Mgmt. Rep. No. 55, Amer. Mgmt. Assoc.,
N. Y. 1961. pp. 60-4. (Lib. No. 658.018, A35).
- 168 Kushnerick, J. P.
Growing managers? Consider a management club.
Aerospace Mgmt. Vol. 5, No. 9, Sept. 1962, pp. 44-7.
- 169 Levinson, H.
Psychologist looks at executive development.
Harv. Bus. Rev. Vol. 40, No. 5,
Sept. 1962, pp. 69-75.
- 170 Lickert, R.
New patterns of management.
McGraw Hill, N. Y., 1961, 279 p.

- 171 Litterer, J. A.
Organizing committees for leadership training.
Personnel Admin. Vol. 24, No. 11, Nov. 1961,
pp. 25-8.
- 172 Longstreet, V. M.
Management Research & development (how to improve
executive decision - making).
Harv. Busns. Rev. Vol. 39, No. 4, July - Aug. 1961,
pp. 125-34.
- 173 McGehee, W., Thayer, P. W.
Training in business and industry.
John Wiley & Sons, N.Y., 1961, 305 pp.
- 174 McGovney, W. C.
Start at the top: what happens when a company's
management development program begins at the
wrong level.
Adv. Mgmt. - Office Exec. Vol. 1, No. 2, Feb. 1962,
pp. 11-4.
- 175 McLarney, W. J.
Management training, cases & principles. Third ed.
Richard Irwin, N.Y. 1959, 534 pp.
- 176 McMurry, R. N.
Executive development; dollars down the drain?
Duns Rev. & Mod. Ind. Vol. 76, No. 1, Aug. 1960,
pp. 36-8.
- 177 Mahoney, T. A. et al
Experimental evaluation of management development.
Personnel psych. Vol. 13, Spring 1960, p. 81-98.
- 178 Management development on a shoestring (Narda Microwave
Co).
Factory. Vol. 119, No. 12, Dec. 1961, p. 128.
- 179 Martin, N. H.
Strategy & tactics of executive action.
Am. Soc. Assoc. Exec. Jour. Vol. 12, No. 1,
Jan. 1960, p. 91 +.
- 180 Marting, E. ed
AMA encyclopedia of supervisory training; basic
materials from successful company programs.
Amer. Mgmt. Assoc., N. Y., 1961, 451 pp.
- 181 Massey, R. J., Suojanen, W. W.
Molding organization climate.
Adv. Mgmt. Vol. 26, No. 10, Oct. 1961, pp. 5-7.

- 182 Masterson, T. R., Henning, K. K.
Is management development worth the cost?
Adv. Mgmt. Vol. 25, Nov. 1960, pp. 12-15.
- 183 Mayfield, H.
Appraisal & interview; personal approach to management development.
Personnel Mgmt. Vol. 43, No. 9, Sept. 1961, pp. 181-9.
- 184 Maynard, H. B.
Industrial engineering - training for management.
Jour. Indust. Engr. Vol. 10, No. 1, Jan. - Feb. 1959, pp. 3-7.
- 185 Miner, J. B.
Management development & attitude change.
Personnel admin. Vol. 24, No. 5, May 1961, pp. 21-6
- 186 Morrison, J. H.
New yardsticks for manager and company development.
Personnel J. Vol. 39, No. 4, Sept. 1960, pp. 133-6, 163.
- 187 Morse, G. E.
Technical skill not enough for managers.
Chem. & Engr. News. Vol. 38, Oct. 3, 1960, p. 23.
- 188 Murdick, R. G.
From engineer to manager.
Mach. Des. Vol. 33, No. 7, Mar. 30, 1961, pp. 98-102
- 189 Murdick, R. G.
The meaning of management as a profession.
Adv. Mgmt. Vol. 25, April 1960, pp. 11-16.
- 190 Nelson, T. H.
Mistakes of the 1950's, opportunities in the 1960's for management development.
Adv. Mgmt. Vol. 25, No. 5, May 1960, pp. 5-7.
- 191 New technique yields triple dividends; you can use successful method developed by these companies to broaden executives.
Nations Bus. Vol. 50, No. 8, Aug. 1962, pp. 40-1.
- 192 O'Donovan, T. R.
Can executive success be predicted?
Adv. Mgmt. Vol. 26, No. 10, Oct. 1961, pp. 23-6.

- 193 Olm, K. W.
Role of industrial engineers in emerging
profession of management.
Jour. Indust. Engrg. Vol. 11, No. 3,
May - June 1960, pp. 217 - 20.
- 194 Owen, R. S.
In-plant supervisor training.
Tappi. Vol. 44, April 1961, pp. 200A-2A.
- 195 Pockass, J.
Executive development: semantics or substance ?
Personnel Adm. Vol. 22, No. 11, Nov. 1959, pp. 36-43.
- 196 Putting executive in the goldfish bowl; with closed-circuit
TV and group analysis; top men at RCA are observed as
they react to simulated problems.
Busns. Week. Sept. 23, 1961, pp. 162-4.
- 197 Pyburn, J. R.
Methods school spells savings (Intn'l Minerals & Chem.
Corp. supervisory training program).
Factory. Vol. 120, July 1962, pp. 92-5.
- 198 Randall, C. B.
The making of an administrator.
Duns Review & Mod. Ind. Vol. 80, No. 3,
Sept. 1962, pp. 43-7.
- 199 Redfield, C. E.
Should business men play management games ?
Office. Vol. 53, June 1961, pp. 14-15.
- 200 Reid, P. C.
New systems, new problems (for supervisors).
Supervisory Mgmt. Vol. 7, No. 8, Aug 1962, pp. 2-7.
- 201 Ritchey, J. A.
Engineering; road to managerial competence.
Tool Engrg. Vol. 43, No. 12, Dec. 1959, pp. 35-8.
- 202 Rood, A.
Memorandum to Management.
In Job Strategy, McGraw-Hill, N. Y., 1961
pp. 267-78.
- 203 Roscoe, T. A.
Formal or informal development programs ?
Adv. Mgmt. - Office Exec. Vol. 1, No. 4,
April 1962, pp. 11-4.

- 204 Rounding out management men; schools & organizations offering liberal arts courses for executives.
Chem. Weekly, Vol. 89, Dec. 23, 1961, pp. 27-8.
- 205 Rowland, V. K.
Tomorrow's managerial requirements (use of incompany selection process as management development tool).
Office Exec. Vol. 36, No. 8, Aug. 1961, pp. 16-18.
- 206 Rule, E. A.
Planned Management Development.
Office Exec. Vol. 34, No. 12, Dec. 1959, p. 48.
- 207 Ryerson, W. N., Planty, E.
Teaching leadership to scientists.
Chem. & Engrg. News. Vol. 38, Feb. 1, 1960.
pp. 48-53.
- 208 Scheer, W. E.
Let's be practical about training supervisors.
Personnel Jour. Vol. 38, No. 1, May 1959, pp. 15-8.
- 209 Scheh, E. C.
Give employees a goal to reach; program for improving executive performance.
Nations Busns. Vol. 47, May 1959, pp. 104-7.
- 210 Schoen, S. H., French, W. L.
Experience with the incident process in management training (at Mallinckrodt).
Personnel. Vol. 36, July 1959, pp. 54-61.
- 211 Scholtz, C. G.
Yes-men -- what a waste.
Admin. Mgmt. Vol. 22, No. 7, July 1961, pp. 32-3.
- 212 See, J. A.
Development of technical supervisors, Flight Test Section, Boeing Airplane Co., Wichita Div.
IRE - Trans. Engrg. Mgmt. Vol. EM-8, No. 4, Dec. 1961, pp. 206-9.
- 213 Settelmair, R. G.
Management views the understanding gap (between administration & operating functions).
ISA Journ. Vol. 9, No. 9, September 1962, pp. 77-80.
- 214 Shotzberger, M. L.
Supervisory training: Who is responsible ?
What is involved ?
Paper Trade Jour. Vol. 146, June 18, 1962, pp. 35-7.

- 215 Shubik, M. comp.
Bibliography on simulation, gaming, artificial
intelligence and allied papers.
Jour. Am. Stat. Assoc. Vol. 55, No. 292, Dec. 1960,
pp. 736-51.
- 216 Simon, H. A.
The new science of management decision.
Harper & Bros., N. Y., 1960. 50 pp.
- 217 Simonds, R. H.
Skills businessmen use most; survey points
up types of training managers feel they need.
Nations Busns. Vol. 48, No. 11, Nov. 1960, p. 88.
- 218 Singer, H. A.
A scientific approach to management development.
Adv. Mgmt. Office Exec. Vol. 1, No. 9, Sept. 1962,
pp. 8-11.
- 219 Sizelove, O. J.
Developing from an engineer to an administrator.
Mech. Engr. Vol. 81, No. 4, April 1959, pp. 54-5.
Discussion. No. 11, Nov. 1959, pp. 101-2.
- 220 Smith, R. M.
Self-discovery is core of new training technique
(T-group approach).
Office Mgmt. & Am. Busns. Vol. 21, Dec. 1960,
pp. 13-6.
- 221 Solem, A. R.
Human relations training; comparison of case study
and role playing.
Personnel Adm. Vol. 23, Sept. 1960, pp. 29-37.
- 222 Solliday, A. L.
The engineering of managers.
Jour. of Petrol. Tech. Vol. 11,
Dec. 1959, pp. 11-3.
- 223 Sonnabend, R. P.
Executive education.
Adv. Mgmt. - Office Exec. Vol. 1, No. 9,
Sept. 1962, pp. 16-21.
- 224 Spillane, C. F.
Evaluating a program in motivation training.
Personnel Adm. Vol. 25, No. 1, Jan. 1962, pp. 50-4.
- 225 Stanley, J. D.
Management games: Education or entertainment.
Personnel Journ. Vol. 41, No. 1, Jan. 1962, pp. 15-17, 23.

- 226 Stewart, N.
Give your men (junior executives) a faster start.
Nations Busns. Vol. 49, No. 8, Aug. 1961, pp. 74-6.
- 227 Stover, C. F.
Managerialism and the educated executive.
Personnel Admin. Vol. 24, No. 7, July 1961,
pp. 47-50.
- 228 Stroud, P. V.
Evaluating a human relations training program
(for supervisors).
Personnel. Vol. 36, No. 11, Nov. 1959.
pp. 52-60.
- 229 Sullivan, D. J.
Philosophy for long-range planned development
(of managers).
Adv. Mgmt. Vol. 25, No. 11, Nov. 1960, pp. 5-7.
- 230 Tangerman, E. J.
Which way up - technical or management.
Product Engr. Vol. 32, No. 33, Aug. 1, 1961,
pp. 31-40.
- 231 Taylor, E. K.
Management development at the crossroads.
Personnel Vol. 36, No. 3, Mar. 1959, pp. 8-23.
- 232 Taylor, J. W.
How to select and develop leaders.
McGraw Hill. N. Y., 1962, 255 pp.
- 233 Ten basic principles for executive development.
(Compiled by GE).
Pulp. & Paper. Vol. 34, No. 5, May 1960, p. 79.
- 234 Testing managers without heat: (Worthington Corp's
self-development activity program).
Busns. Week. Sept. 19, 1959, pp. 76-7.
- 235 That other grass is always greener: Which is better,
staying in engineering or going into management?
Chem. Engr. Vol. 67, July 25, 1960, pp. 127-30.
- 236 Thomas, D.
Case for planned development (of managers).
Personnel. Vol. 38, No. 3, Mar. 1961, pp. 8-17.

- 237 Tongberg, C. O.
Do you have what it takes to be a manager?
Petrol. Engr. Vol. 32, No. 3, Mar. 1960,
pp. E 15-16.
- 238 Training engineers for management.
abst. - SAE Jour. Vol. 68, No. 3, Mar. 1960,
pp. 40-1.
- 239 Tripician, J. F.
Profile of performance: Guide to effective
management training. (Penny's supervisory
appraisal program).
Personnel. Vol. 37, No. 3, Mar. 1960, pp. 18-25.
- 240 Trotter, C. H.
Do you want to work for management objectives?
Petrol. Engr. Vol. 32, No. 2, Feb. 1960, pp. A 8-9.
- 241 Tyler, C.
How a good manager hits the mark.
Chem. Engrg. Vol. 69, Mar. 5, 1962, pp. 121-4.
- 242 Tyler, C.
Reading to become a better manager.
Chem. Engr. Vol. 69, May 28, 1962, pp. 111-4.
- 243 Tyler, C.
Steps in becoming a better manager.
Chem. Engr. Vol. 69, April 30, 1962, pp. 105-8.
- 244 Tyler, C.
Training develops the better manager.
Chem. Engr. Vol. 69, June 25, 1962, pp. 129-32.
- 245 Value of management seminars questioned.
Controller. Vol. 30, No. 4, April 1962, p. 188.
- 246 Vervalin, C. H.
Management development; past, present, future.
Hyrocarbon Proc. & Petr. Refiner. Vol. 40, No. 10,
Oct. 1961, pp. 193-5; No. 11, Nov. 1961, pp. 321-4;
No. 12, Dec. 1961, pp. 174-6.
- 247 Vlamos, J.
Four companies stretch executives - this plan
helps make good managers better.
Nations Busns. Vol. 49, No. 8, Aug. 1961, pp. 38-9.
- 248 Wickstrom, L., King, D.
Teaching PERT project network techniques.
J. Am. Soc. Training Directors. Vol. 15, No. 12,
Dec. 1961, pp. 28-49.

- 249 Wikstrom, W. S.
Gearing management development to company
expansion (Mead Johnson & Co.).
Mgmt. Record. Vol. 21, No. 12, Dec. 1959, pp. 386-91.
- 250 Wikstrom, W. S.
Serious business of business games
Mgmt. Record. Vol. 22, No. 2, Feb. 1960, pp. 6-8.
- 251 Williams, E. H.
Business games: Their use for the training of
managers.
Personnel Mgmt. Vol. 43, No. 121, Dec. 1961,
pp. 239-44.
- 252 Williamson, M. A.
Stepping into management (by engineers).
Amer. Ceramic Soc. Bull. Vol. 38, Nov. 1959,
pp. 668-71.
- 253 Wiora, A. P., Trego, J. W.
Experiment in management development.
Personnel. Vol. 38, No. 5, May 1961, pp. 25-30.
- 254 Wolever, C. R., Hendershot, R. T.
How to conduct your own in-plant training
program for supervisory personnel.
Inland & Amer. Printer Lith. Vol. 143,
July 1959, pp. 35-7.
- 255 Womach, R. M.
Toward the total manager.
Personnel Admin. Vol. 22, Sept. 1959,
pp. 37-41.
- 256 Wright, E.
Building management's second team.
Off. Mgmt. & Amer. Bus. Vol. 21, No. 7,
July 1960, pp. 39-46.
- 257 Wright, M.
Ten guides to developing managers.
Petrol. Refiner. Vol. 39, No. 8, Aug. 1960,
pp. 145-8.
- 258 Yarnall, D. R.
Vital spot in management; relationship between
supervisor & supervised.
Mech. Engr. Vol. 82, No. 1960, pp. 46-8.

- 259 Zack, E. R.
Integrated approach to management development.
(Sperry Gyroscope Co. program)
Personnel. Vol. 38, No. 9, Sept. 1961, pp 51-60.
- 260 Zager, R., Schaffer, R. H.
When managers manage; development takes care
of itself.
Personnel. Vol. 37, No. 11, Nov. 1960, pp. 8-17.
- 261 Zalesmik, A., Christensen, C. R., Roethlisberger, F. J.
Executive development programs.
In The Motivation, Production, and Satisfaction
of Workers; A Prediction Study.
Harv. Bus. School., Boston, 1958, pp. 424-26.
- 262 Zearfoss, L. F.
Blueprinting development as a manager.
Ind. Med. Vol. 31, No. 2, Feb. 1962, pp. 73-7.

SECTION IV

ENGINEERING ADMINISTRATION

- 263 Abhyanker, B.
Ideological conflict between wage restraint and
industrial engineering and effect on productivity.
(in Great Britain)
Instn. Prod. Engr. Jour. Vol. 38, No. 9.
Sept. 1959, pp. 503-13.
- 264 Allison, D.
Places for research (can creative drive be maintained
in laboratories built for a thousand men ?)
Intl. Sci. & Techn. Vol. 1, No. 9, Sept. 1962,
pp. 20-31.
- 265 Angell, C. E., et al
How should scientific research be administered?
(views of 7 research administrators)
Busns. Horizons, Vol. 1, No. 3, Summer 1958,
pp. 52-61.
- 266 Ardleigh, J. D.
How to get profits, not problems, from creative
people.
Mgmt. Methods. Vol. 17, Nov. 1959, pp. 91-8.

- 267 Bailey, G. L.
Organizing scientific research.
Engineer. Vol. 207, April 17, 1959, pp. 614-6.
same: Am. Soc. Naval Engr. J. Vol. 71, No. 8,
Aug. 1959, pp. 563-7.
- 268 Barrows, B. F.
The case for scientific management in science.
Res/Dev. Vol. 11, No. 12, Dec. 1960, pp. 93-101.
- 269 Barthel, C. E.
Managements most exciting challenge (in
administration of creative research scientists
& engineers).
Frontier, Vol. 22, No. 4, Summer 1960, pp. 8-12.
- 270 Beaubien, W. H.
Management for creative idea appraisal - the secret
weapon for technical progress.
IRE - 1960 Int. Conv. Rec. Vol. 8, Pt. 10.
pp. 30-36.
- 271 Begovich, N. A., Scheid, P. N.
The professional register - a program for
improving engineering management visibility of
technical capabilities.
IRE - 1960 Int. Conv. Rec. Vol. 9, Pt. 10,
pp. 71-4.
- 272 Bicking, C. A.
Designing valid experiments (efficiency in
experimentation from time-cost view point).
Ceramic Age. Vol. 78, No. 7, July 1962, pp. 43-8.
- 273 Bidwell, A. C., Farrell, J. J., Blake, R. R.
Team job training-a new strategy for industry.
ASTD Journ. Vol. 15, 1961, pp. 3-23.
- 274 Birch, N.
Research worker's freedom in large firms.
Engrging. Vol. 188, Nov. 13, 1959, pp. 478-9.
- 275 Black, J. M.
Management and risk-taking; hazards of playing it safe.
Mgmt. Rev. Vol. 5, No. 8, Aug. 1962, pp. 4-9.
- 276 Blake, B. R., Mouton, J. S., Bidwell, A. C.
Managerial grid: The comparison of 7 theories.
Adv. Mgmt. - Office Exec. Vol. 1, No. 9,
Sept. 1962, pp. 12-15, 36.

- 277 Boulanger, D. G.
Managing a PERT program.
Mach. Design. Vol. 34, No. 27,
Nov. 22, 1962, pp. 130-2.
- 278 Brandon, D. H.
Implications of automatic data processing in
the engineering profession.
Comp. & Automation. Vol. 11, No. 2, Feb. 1962,
pp. 48-50.
- 279 Bunn, H. S.
Management function of the engineer in industry.
Chem. Engr. Vol. 67, Nov. 14, 1960, pp. 239-40.
- 280 Burnett, Y.
Management's Tower of Babel.
Mgmt. Rev. Vol. 50, No. 6, June 1961,
pp. 4-11.
- 281 Burns, T., Stalker, G. M.
The management of innovation.
Tavistock Pub. Ltd., London. 1961. 269 pp.
- 282 Burns, T.
Research, Development and Production:
Problems of conflict & cooperation.
IRE - Trans Engrg. Mgmt. Vol. EM-8, No. 1,
Mar. 1961, pp. 15-23.
- 283 Caldwell, J. W.
Management skills for scientists in supervision.
Adv. Mgmt. Vol. 24, No. 4, April 1959, pp. 22-6.
- 284 Campbell, J. M.
Communicating with company management.
Res/Dev. Vol. 12, No. 2, Feb. 1961, pp. 90-6.
- 285 Cantor, S. M.
Management, a job for scientists.
Chem & Engr. News. Vol. 39, Oct. 23, 1961
pp. 112-3.
- 286 Chamberlain, C. J.
Coming era in engineering management.
Harv. Bus. Rev. Vol. 39, No. 5, Sept. - Oct. 1961,
pp. 87-94.
- 287 Chesters, J. H.
The encouragement of productive research.
NML Tech. Journ. Vol. 2, No. 4, Nov. 1960, pp. 24-6.

- 288 Colmen, K. S.
Information in action (Optimizing research performance).
Res/Dev. Vol. 12, No. 2, Feb. 1961, pp. 6-18.
- 289 Cronstedt, V.
Engineering management and administration.
McGraw-Hill, N.Y., 1961. 345 pp.
- 290 Davis, K.
Group behavior & the organization chart.
Adv. Mgmt. - Office Exec. Vol. 1, No. 6,
June 1962, pp. 14-8.
- 291 Demian, J.
Coordinating work of engineering personnel assigned to do job.
ASME - Paper 62-MD-19, May 1962, 12 pp.
- 292 Deutsch & Shea, Inc.
Motivating factors in engineering employment research report. Part 3. The motivating factors in engineer job satisfaction.
Indust. Relations Newsletter, N.Y. 1958, 1 Vol.
- 293 Dressner, J.
Conservation of our scientific talent.
Adv. Mgmt. Vol. 24, No. 3, Mar. 1959, pp. 12-13.
- 294 Dunlap, J. W.
Research scientists, care & feeding of
Mining Congress J. Vol. 47, Jan. 1961, pp. 55-7.
- 295 Edwards, J. A.
Laboratory management and techniques.
Butterworths, London, 1960, 207 p.
- 296 Engineering management division of responsibilities.
Prod. Engr. Vol. 31, April 18, 1960, p. 81.
- 297 Engineers tailor-made for GM: (at world's only corporation-owned college).
Busns. Week. July 1, 1961, pp. 48-50.
- 298 Engineers want more recognition, higher pay, better use of talents.
Mat'l's. in Design Engr. Vol. 52, Sept. 1960, pp. 27-8.
- 299 Fleming, C. L.
Organization, assignments, & expectations (in a research lab).
Res. Mgmt. Vol. 2, No. 1, Spring 1959, pp. 23-31.

- 300 Fogiel, M.
Attracting & Keeping engineers.
Personnel Jour. Vol. 38, No. 10
March 1960, pp. 377-81.
abst. - Mgmt. Rev. Vol. 49,
May 1960, pp. 54-6.
- 301 Frambes, R. W.
New frontier in defense R & D management.
Aerospace Mgmt. Vol. 5, No. 7, July 1962, pp. 42-7.
- 302 Frank, G.
Four ways to keep engineering costs down.
Busns. Mgmt. Vol. 22, No. 1, April 1962,
pp. 58-61, 104.
- 303 Fremed, R. F.
You & your job - you told them you're unhappy
(survey of engr's opinions on conflict between
managers & engr's & new approaches suggested).
Chem. Engr. Vol. 66, No. 25, Dec. 14, 1959,
pp. 180, 182, 184.
- 304 Fried, G.
Convertible engineering organization, project
requirements change from conception to completion.
Mach. Des. Vol. 32, Mar. 3, 1960, pp. 98-101.
- 305 Gaddis, P. O.
Age of massive engineering.
Harv. Busns. Rev. Vol. 39, No. 1,
Jan. 1961, pp. 138-42.
abst. Mgmt. Rev. Vol. 50,
March 1961, pp. 27-9.
- 306 Gaddis, P. O.
The management of advanced technology.
ASME - 1961 Winter Ann. Meeting,
Nov. 1961, paper 61-WA-270.
- 307 Gaddis, P. O.
Project manager: His role in advanced technology
industry.
Westinghouse Eng. Vol. 19, No. 7, July 1959,
pp. 102-6.
same: Am. Soc. Naval Eng. J. Vol. 71, No. 11,
Nov. 1959, pp. 679-83.
abst. Mach. Des. Vol. 31, Oct. 29, 1959,
pp. 142-3.
- 308 Ghiselli, E. E.
Individuality as a factor in the success of
management personnel.
Personnel Psych. Vol. 13, No. 1, Spring 1960, pp. 1-10.

- 309 Gilroy, E. B.
Research & development personnel administrator:
What's his role?
Electronic Ind. Vol. 19, No. 2, Feb. 1960, pp. 194-5.
- 310 Goldstein, A. S.
Engineering Management.
Mech. Engr. Vol. 83, No. 12, Dec. 1961,
pp. 118-9.
- 311 Gollomp, B. P.
Management control of engineering effort
through graphic methods.
IRE - 1960 Int. Conv. Rec. Vol. 9, Pt. 10,
pp. 75-98.
- 312 Goode, H. H.
Decontrol engineer (achieving more engineering per
engineer).
ASME - Paper 59-Mgt. -2, also in Mech. Engr.
Vol. 82, No. 5, May 1960, pp. 36-8.
- 313 Green, E. I.
Role of technical supervisor.
Elec. Engrg. Vol. 79, No. 9,
Sept. 1960, pp. 715-8.
- 314 Guyton, J. H., Jaumot, F. E.
The organization of research and engineering
activities at Delco Radio Division.
Gen. Motors Engrg. Journ. Vol. 8, No. 1,
Jan. - Feb. - Mar. 1961, pp. 24-30.
- 315 Handschumacher, A. G.
Scientist: Is he equipped for managing?
Office Exec. Vol. 36, No. 4, April 1961,
pp. 20-1.
- 316 Hanford, W. E.
People versus machines. (Division of research,
development & engineering budgets into suggested
categories).
Chem. & Indus. 1961, No. 44, Nov. 4, pp. 1777-8.
- 317 Hawkins, G. A.
Challenge to engineering management.
Mech. Eng. Vol. 81, No. 11, Nov. 1959,
pp. 42-4.
- 318 Herrick, J. S.
Is management (of) research different ?
Advanced Mgmt. Vol. 26, No. 12, Dec. 1961, pp. 12-6.

- 319 Hewes, R. B.
 Motivation: a management must.
 Coal Age. Vol. 64, No. 1, Jan. 1959,
 pp. 90-3.
- 320 Heyel, C. ed.
 Handbook of industrial research management.
 Reinhold, N.Y., 1960. 2nd. ed. 513 pp.
- 321 Hicks, J. A.
 Concepts of engineering organization.
 Adv. Mgmt. Vol. 26, No. 2, Feb. 1961, pp. 8-11.
- 322 His job a pleasure, the boss a pain (Deutsch &
 Shea study).
 Engrg. News. Vol. 166, April 13, 1961, pp. 30-1.
- 323 Hitchcock, L. B.
 Increasing the payoff on R & D; a unique
 experiment in multiple management.
 Mgmt. Rev. Vol. 48, Oct. 1959, pp. 9-13.
- 324 How to direct the professional.
 Iron Age. Vol. 189, No. 9, Mar. 1, 1962, p. 75.
- 325 Howard, G. W.
 A philosophy for R & D managers.
 Res/Dev. Vol. 12, No. 11, Nov. 1961, pp. 89-102.
- 326 Hughes, J. E.
 How to motivate engineers.
 Chem. Eng. Vol. 69, Aug. 20, 1962, pp. 148-9.
- 327 Hulley, O. S.
 The essential triangle, Scientist, engineer, &
 engineering technician.
 Tool & Mfging Engr. Vol. 46, No. 3, March 1961,
 pp. 63-6.
- 328 Huntley, H. R.
 Engineers; managers of money.
 Elec. Engr. Vol. 81, No. 5, May 1962,
 pp. 338-41.
- 329 Hurt, R.
 Personality traits of creative R/D personnel.
 Res/Dev. Vol. 12, No. 9, Sept. 1961, pp. 111-6.
- 330 Hurt, R.
 Planning R/D Centers around human factors,
 Res/Dev. Vol. 12, No. 1, Jan. 1961, pp. 76-86.

- 331 Influence of R/D environment.
Res/Dev. Vol. 11, No. 11, Nov. 1960,
pp. 82-5.
- 332 Integration of the professional man with the
company as a whole.
Res/Dev. Vol. 11, No. 11, Nov. 1960,
pp. 88-9.
- 333 Irish, S. R.
How to control research & engineering.
Mech. Eng. Vol. 82, No. 6, June 1960, pp. 46-7.
ASME, paper 59-SA-45.
- 334 Jacobs, D. H.
The conduct of basic research in the aerospace
industry (Boeing, Convair, Lockheed & Douglas).
Cal. Tech. Guggenheim, Aero Lab. 1961, 124 pp.
AD 260084.
- 335 Jermy, K. E.
Technical administration in applied research
laboratories.
Research. Vol. 15, No. 2, Feb. 1962, pp. 63-7.
- 336 Jones, R. W.
Administrator and the professional man.
Am. Soc. Naval Eng. J. Vol. 72, No. 5, May 1960,
pp. 206-10.
- 337 Kaplan, N.
Research administration and the administrator:
USSR & the U.S.
Admin. Sci. Quart. Vol. 6, No. 1, June 1961, pp. 51-72.
- 338 Kaplan, N.
Role of the research administrator.
Admin. Sci. Quart. Vol. 4, No. 1, Jan. 1959, pp. 20-42.
- 339 Karger, D. W.
Engineers: How to get & keep them.
Mach. Des. Vol. 34, No. 1, Jan. 4, 1962, pp. 94-8.
- 340 Karger, D. W.
Thinking with management (by engineers).
Machinery (N.Y.) Vol. 68, No. 11, July 1961,
p. 123.
- 341 Katz, A.
An industrial dynamic approach to the management
of research & development.
IRE - Trans. on Engrg. Mgmt. Vol. EM-6, No. 3,
Sept. 1959, pp. 75-80.
Also in IRE - Wescon Conv. Rec. Vol. 3, Pt. 8,
1959, pp. 3-11.

- 342 Keating, P. J.
The research director and his people.
Research Mgmt. Vol. 4, No. 1, Spring 1961,
pp. 23-30.
- 343 King, W. O.
Scientists are people.
Plant Eng. Vol. 15, No. 11, Nov. 1961,
pp. 106-8.
- 344 Kipp, E. M.
Introduction of the newly graduated scientists
to industrial research.
Res. Mgmt. Vol. 3, No. 1, Spring 1960, pp. 39-47.
- 345 Koff, R. M.
Men, methods & imagination; advice to engineering
management.
Prod. Engr. Vol. 31, No. 18, May 2, 1960, pp. 46-7.
- 346 Kossack, C. F.
Operations research as a tool for engineering
management.
(Paper at 9th Joint Conf. Engrg. Mgmt. Sept. 1961)
abst: Jour. of Metals. Vol. 13, No. 11, Nov. 1961,
p. 835.
- 347 Kraig, H. J.
Milepost approach to control of research &
development projects.
NAA - Bull. Vol. 41, No. 5, Sec. 1, Jan. 1960,
pp. 41-56.
- 348 Krugman, H. E., Edgerton, H. A.
Profile of a scientist-manager.
Personnel. Vol. 36, No. 9, Sept. 1959,
pp. 38-49.
- 349 Kurshan, J.
Management of research services.
IRE - Trans on Eng. Mgmt. Vol. EM-7, No. 4,
Dec. 1960, pp. 141-5.
- 350 Laitala, E.
Engineering and organization.
(Irwin series in ind. enrg. & mgmt.)
Richard Irwin, N. Y. 1959. 391 p.
- 351 Larsen, F. J.
Initiating & fulfilling industrial R/D projects.
Res/Dev. Vol. 12, No. 2, Feb. 1961, pp. 19-23.

- 352 Larson, R. L.
How to define administrative problems.
Harv. Bus. Rev. Vol. 40, No. 1, Jan. 1962,
pp. 68-80.
- 353 Layton, A. B.
What management expects of research & members of
its research staff.
Tappi. Vol. 42, No. 3, Mar. 1959, pp. 52A-53A.
- 354 Ledeen, E. A.
Adventures in engineering; tools for management.
Aerospace Engr. Vol. 21, No. 2, Feb. 1962, pp. 63, 69.
- 355 Lester, D. R.
How to keep engineers happy (experiment at GE's flight
propulsion laboratory).
Amer. Busns. Vol. 30, No. 1, Jan. 1960, pp. 24-6.
- 356 Lewis, R. E.
The professional engineer as manager.
IRE - 1961 Int. Conv. Rec. Vol. 9, Pt. 10,
pp. 48-53.
- 357 Likert, R.
Supervision (of scientists & engineers).
Int'l Science & Tech. Vol. 1, No. 3.
March 1962, pp. 57-62.
- 358 McGarry, J. F.
How to manage an engineering project.
Petro. Refiner. Vol. 38, No. 10, Oct. 1959,
pp. 149-58.
- 359 McNulty, J. E.
Organizational change in growing enterprises.
Admin. Sci. Quart. Vol. 7, No. 1, June 1962,
pp. 1-21.
- 360 Management - engineering foremost problem, keeping
abreast with technological advances.
Plant. Vol. 24, No. 2, Feb. 1962, pp. 12-3.
- 361 The management of scientific manpower.
(AMA Mgmt. Rep. No. 22)
Amer. Mgmt. Assoc., N. Y. 1958. 160 p.
- 362 Mandell, M. M.
Research management: some clues for selection.
Personnel. Vol. 38, No. 1, Jan. 1961, pp. 71-4

- 363 Marcson, S.
Role concept of engineering managers.
IRE - Trans. on Eng. Mgmt. Vol. EM-7, No. 1,
Mar. 1960, pp. 30-3.
- 364 Martin (Company, Baltimore) cultivates it
brainpower (designs organization to benefit
engineers & scientists).
Steel. Vol. 149, Nov. 6, 1961, pp. 56-7.
- 365 Marting, E. ed.
Problems & practices in engineering management.
(AMA Special Rep. No. 24)
Amer. Mgmt. Assoc. N.Y., 1957, 132 p.
- 366 Marvin, P.
Engineering productivity - what can be done to get more
for your research & engineering dollar?
Mach. Des. Vol. 34, No. 9, April 12, 1962,
pp. 104-6.
- 367 Marvin, P.
Revitalizing the engineering organization.
Mach. Des. Vol. 32, May 12, 1960, pp. 170-6.
- 368 Marvin, P.
Roadblocks to effective engineering.
Mach. Des. Vol. 34, No. 20, Aug. 30, 1962,
pp. 74-7.
- 369 Mears, R. B.
Management of research & development personnel
in an industrial laboratory.
ASME - AMA - Engineering Mgmt. Conf.
Sept. 1961, N.Y. - Paper 61 Mgt. -1.
abst. in Jour. of Metals, Vol. 13, No. 11,
Nov. 1961, p. 836.
- 370 Michael, S. R.
Developing managers out of creative specialists.
Research Mgmt. Vol. 4, No. 2, Summer 1961,
pp. 119-31.
- 371 Miles, H. W.
Management of scientific research - a report
bibliography.
ASTIA. Jan. 1962. 77 p.
AD 269700 (Library No. 14,718)
- 372 Miller, H. M.
Management of engineers & scientists.
Chem. & Ind. Nov. 19, 1960, pp. 1433-4.

- 373 Murdick, R. G.
Co-ordinating engineering activities.
Mach. Des. Vol. 34 No. 13, June 7, 1962,
pp. 124-31.
- 374 Murdick, R. G.
Engineering administration.
Mach. Des. Vol. 32, July 7, 1960, pp. 100-6.
- 375 Murdick, R. G.
Financial planning & cost reporting in engineering
& research.
Mach. Des. Vol. 34, No. 16, July 5, 1962, pp. 98-104.
- 376 Nelson, G. H.
Management of research.
Engineer. Vol. 209, Mar. 11, 1960, pp. 432-5.
- 377 Niemann, F. L., Trageser, D. A.
Accelerating research & development progress.
Res/Dev. Vol. 11, No. 4, April 1960, pp. 113-5.
- 378 Optimizing research performance.
(Conf. at Univ. of Wisconsin)
Res/Dev. Vol. 12, No. 2, Feb. 1961,
pp. 4, 6-7, 19-23, 49-50, 90-2;
No. 3, Mar. 1961, pp. 75-6.
- 379 O'Shaughnessy, M. T.
Middle management of research & development.
Res. Mgmt. Vol. 3, No. 2, Summer 1960, pp. 85-92.
- 380 Parkinson, L. R.
Method for project management.
Automotive Indust. Vol. 124, May 15, 1961,
pp. 80-1.
- 381 Paules, C. E.
Modernized engineering organization.
ASME - Paper 59-A-245, Dec. 1959, 7 p.
Condensed in Mach. Des. Vol. 31,
Dec. 24, 1959, pp. 133-4.
- 382 Pelz, D. C. Andrews, F. M.
Organizational atmosphere, as related to types
of motives & levels of output.
U. of Mich., Instit. for Social Research Interim
Techn Rep., Analysis Memo No. 9, OOR Rep. No. 0010:3,
April 15, 1961, 1 Vol.
AD 255903.

- 383 Pepinsky, P. N., Norton, B. A., Pepinsky, H. B.
Originality in group productivity. II. The effects
of varied executive sanctions upon productive independence
in subordinate teams.
Ohio State Un., Personnel Res. Board,
Contract Nonr-49515, Proj. NR 170, 396,
1960, 67 p.
AD 246954.
- 384 Phelps, E. D.
Help your engineers get ahead.
Harv. Bus. Rev. Vol. 40, No. 1,
Jan.-Feb. 1962, pp. 125-132.
- 385 Powell, D. C.
Skills bank aids management planning at Bendix.
Aerospace Mgmt. Vol. 5, No. 7, July 1962, pp. 51-3.
- 386 Product R & D moves into the plant (Pros & cons of
decentralization of product research.)
Chem. Week. Vol. 90, May 5, 1962, p. 65.
- 387 Quinn, J. B.
How to evaluate research output.
Harv. Bus. Rev. Vol. 38, No. 2, Mar/April 1960,
pp. 69-80.
- 388 Radner, R.
The applications of linear programming to team
decision problems.
Mgmt. Sci. Vol. 5, No. 2, Jan. 1959, pp. 143-150.
- 389 Randle, C. W.
How to manage research & development.
Mgmt. Methods, Vol. 16, No. 9, Sept. 1959,
pp. 30-5.
- 390 Randle, C. W.
Problems of R & D management.
Harv. Bus. Rev. Vol. 37, No. 1, Jan/Feb. 1959,
pp. 128-136.
- 391 Raudsepp, E.
Directing creative research.
Personnel Journ. Vol. 38, No. 2,
April 1960, pp. 421-3.
- 392 Raudsepp, E.
Engineer attitudes: 1. Career satisfactions:
Money means less than sense of accomplishment.
Mach. Des. Vol. 34, No. 28, Dec. 6, 1962, pp. 120-6.

- 393 Raudsepp, E.
Engineering of management (dual channels of advancement).
Mach. Des. Vol. 33, Dec. 21, 1961, pp. 94-9.
- 394 Raudsepp, E.
How much freedom for engineers.
Mach. Des. Vol. 33, No. 9, 1961,
pp. 150-4.
- 395 Ream, N. J.
Planning & Control in engineering management.
ASME - Paper No. 59-MGT-7, Sept. 1959, 53 p.
- 396 Research on the research process (a review).
IRE - Trans. Engrg. Mgmt. Vol. EM-6, No. 3,
Sept. 1959, pp. 87-8.
- 397 Rex, F. J.
Job dissatisfaction (by engineers).
Mach Des. Vol. 34, No. 23, Sept. 27, 1962,
pp. 139-41.
- 398 Rice, H. W.
Realistic research administration.
Indust. Research. Vol. 3, No. 3, June-July 1961,
pp. 62-7.
- 399 Roberts, E. B.
Simulation techniques for understanding R & D
management.
IRE - Conv. Rec. Vol. 7, Pt. 10, 1959, pp. 38-43.
- 400 Robertson, S. A.
Engineering management
Philosophical Lib., N. Y., 1961, 2nd ed. 467 p.
- 401 Rodert, L. A.
Relating industrial research to company goals.
Aerospace Eng. Vol. 20, No. 10, Oct. 1961, pp. 26.
402. Rodert, L. A.
Whither aerospace industry research mangement.
Aerospace Eng. Vol. 20, No. 3, Mar. 1961,
pp. 24-5, 62, 64.
- 403 Savage, C. T.
Peripheral professional problems of engineering
management.
Elec. Engr. Vol. 78, Dec. 1959, pp. 1160-3.

- 404 Sayer, J. S.
Some aspects of control of the engineering
function.
Mach. Des. Vol. 31, Nov. 12, 1959, pp. 204-6.
- 405 Schott, S.
Are research administrators getting lazy?
Research Mgmt. Vol. 2, No. 3, Autumn 1959, pp. 139-47.
- 406 Scientists by any other name; to reward top
researchers, two companies create prestige
fellowship ranks.
Business Week. Mar. 10, 1962, pp. 89-90.
- 407 Scientists face professional obsolescence.
Chem. & Engrg. News. Vol. 40, No. 32,
Aug. 6, 1962, pp. 25-7.
- 408 Secrist, H. A.
Motivating the industrial research scientists.
Res. Mgmt. Vol. 3, No. 1, Spring 1960, pp. 57-64.
- 409 Shepherd, H. A.
Social change in science and engineering.
IRE - Trans. on Engrg. Mgmt. Vol. EM-8, No. 1,
Mar. 1961, pp. 11-4.
- 410 Siegelman, M.
Motivations of scientists.
Chem. & Eng. N. Vol. 38, Mar. 14, 1960,
pp. 66-8.
- 411 Simon, H., Newell, A.
GPS: Computer simulation of human thinking &
problem solving.
Datamation. July 1961, pp. 18-20; Aug. 1962,
pp. 35-7.
- 412 Simon, L. E.
A continuum of applied science in the corporation.
Res. Mgmt. Vol. 2, No. 4, Winter 1959, pp. 251-9.
- 413 Sims, E. R.
Engineer on management team.
Proc. Ohio State Conf. on Progressive Engrg.
Personnel Policies. Ohio State Univ: Engrg.
Exper. Station. Dec. 1959, pp. 57-9.
- 414 Skifter, H. R.
Art of engineering management.
IRE - Proc. Vol. 50, No. 5, May 1962, pp. 1102-9.
- 415 Space probes meet growing research management
problems; symposium.
Iron Age. Vol. 188, Oct. 26, 1961, pp. 53-5.

- 416 Stephenson, H. M.
Environmental effects on engineering productivity.
Proc. Ohio State Conf. on Progressive Engring.
Personnel Policies. Ohio State Univ: Engrg.
Exper. Station. Dec. 1959, pp. 22-5.
- 417 Stessin, L.
Managing your manpower (are scientists and
engineers misfits of industry or just mismanaged).
Dun's Rev. & Mod. Ind. Vol. 75, No. 61,
June 1960, pp. 154-5.
- 418 Stevenson, E. P.
Advises sounder research and development management.
Prod. Engr. Vol. 30, May 18, 1959, pp. 31-2.
- 419 Stillson, P.
Don't fear new ideas (why managers sometimes
fail to recognize value of new ideas).
Petro/Chem. Engr. Vol. 34, June 1962,
pp. 96-9.
- 420 Stoltz, R. E.
Assessing research productivity.
Personnel Admin. Vol. 25, No. 1,
Jan. '62, pp. 44-9.
- 421 Storer, N. W.
Research orientations and attitudes toward
teamwork (by basic research scientists).
IRE - Trans. on Engrg. Mgmt. Vol. EM-9, No. 1,
Mar. 1962, pp. 29-33.
- 422 Swager, W. L.
Improving the management of research.
Business Horizons. Vol. 2, No. 4, Winter 1959,
pp. 42-9.
- 423 Swager, W. L.
Understanding management's role in research.
Battelle Tech. Rev. Vol. 9, No. 1, Jan. 1960,
pp. 9-13.
- 424 Thompson, V. A.
Hierarchy, specialization, & organizational conflict.
Admin. Sci. Quart. Vol. 5, No. 4, Mar. 1961, pp. 485-521.
- 425 Trader, W. D.
Professional job levels.
Mach. Des. Vol. 34, No. 21, Sept. 13, 1962, pp. 136-40.
- 426 Travis, I.
Technical talent management for research & development.
Space/Aeronaut. Vol. 31, No. 5, May 1959, pp. 287-8.

- 427 Turck, F.B. comp.
Ideas, inertia, & achievement. (Shortening time
lag between scientific discovery & engineering
application).
ASME, N.Y. 1960. 183 p.
(Library No. 507.2, T84)
- 428 Turner, H.S.
What research (workers) expects of top management.
Tappi. Vol. 42, No. 3, Mar. 1959, pp. 46A-47A.
- 429 Urwick, L.F.
The engineer's debt to management.
Mech. Engrg. Vol. 83, No. 3,
Mar. 1961, pp. 34-7.
- 430 Van Dorn, H.B.
Making the engineering team click.
Amer. Engr. Vol. 31, May 1961, pp. 27-9.
- 431 Wadel, L.B., Bush, C.M.
An approach to probabalistic forecasting of
engineering manpower requirements.
IRE - Trans. Engrg. Mgmt. Vol. EM-8, No. 3,
Sept. 1961, pp. 158-9.
- 432 Walter, F.
Engineer's role in management.
Adv. Mgmt. Vol. 25, No. 10, Oct. 1960, pp. 13-5.
- 433 Walton, D.G.
Engineering managers: Do you understand their role?
Adv. Mgmt. Vol. 26, No. 5, May 1961, pp. 9-12.
- 434 Walton, E.
Project "Office Communications".
Admin. Mgmt. Vol. 23, No. 8, Aug. 1962, pp. 22-4.
- 435 Walton, E.
What makes engineers move & remain?
Personnel Adm. Vol. 23, No. 5, May 1960, pp. 22-6.
- 436 Weiffenbach, J.F.
Structuring R/D organizations.
Res/Dev. Vol. 12, No. 6, June 1961, pp. 5-11.
- 437 Weiss, E.B.
Are scientists lording it over management?
Adv. Age. Vol. 33, April 9, 1962, pp. 80-1.
- 438 Whittington, G.A.
Trends in R & D management.
Res/Dev. Vol. 12, No. 8, Aug. 1961,
pp. 95-109.

- 439 Williamson, M. A.
Applying reliability concepts to technical
management.
Res/Dev. Vol. 11, No. 3, Mar. 1960, pp. 105-8.
- 440 Williamson, M. A.
Criterion for policy.
Res/Dev. Vol. 12, No. 11, Nov. 1961, pp. 81-6;
Vol. 12, No. 12, Dec. 1961, pp. 67-73.
- 441 Williamson, M. A.
Instituting effective R & D management controls.
Res/Dev. Vol. 13, No. 11, Nov. 1962, pp. 39-42.
- 442 Williamson, M. A.
Role of the technical staff in product innovations.
Res/Dev. Vol. 11, Aug. 1960, pp. 59-61.
- 443 Williamson, M. A.
Staffing the R/D organization.
Res/Dev. Vol. 12, No. 2, Feb. 1961, pp. 49-54;
Vol. 12, No. 3, Mar. 1961, pp. 75-82.
- 444 Williamson, M. A.
Upgrade technical competence.
Res/Dev. Vol. 11, No. 12,
Dec. 1960, pp. 79-84.
- 445 Wyatt, J. L.
Are creative people different? Developing incentives
for scientists & engineers.
Mgmt. Rev. Vol. 48, July 1959, pp. 20-4.
- 446 Yeamans, W. H.
Engineering for product innovation.
Mach. Des. Vol. 33, Dec. 7, 1961, pp. 134-8.
- 447 Young, J. L.
Philosophy of engineering management.
ASME - Paper No. 59-Mgt.-3, Sept. 1959, 4 p.
- 448 Your engineers will talk when recruiters hit town.
Steel. Vol. 151, No. 7, Aug. 13, 1962, pp. 29-30.
- 449 Zack, E. R.
Motivating the "knowledge" worker.
Adv. Mgmt. - Off. Exec. Vol. 1, No. 10,
Oct. 1962, pp. 9-13.
- 450 Zweier, P.
Dual ladders of advancement.
Proc. Ohio State Conf. on Progressive Engrg.
Personnel Policies. Ohio State Univ. Engrg.
Exper. Station. Dec. 1959, pp. 37-44.

Section V

MANAGEMENT INFORMATION AND CONTROL SYSTEMS

- 451 AFCS Management Conference Proceedings.
(Monterey, Calif., May 2-5, 1962)
AF, AQAFC (SCAP), Andrews AFB, Wash. D. C.
1962, 1 Vol.
Summaries - Aviation Week. Vol. 76, No. 20,
May 14, 1962, pp. 21, 26-8.
Armed Forces Mgmt. Vol. 9, No. 1, Oct. 1962,
pp. 42-5, 48, 50.
- 452 AFCS Policies and Procedures Handbook.
AF, ASD, Exhibit A 300 61-1,
(Library Acc. No. 14, 570)
- 453 Anachen, M.
Managerial decisions (effect of new information
technology on decision making organization
structure & administration).
In Automation & Technological Change, Prentice-
Hall, Englewood Cliffs, N. J. 1962, pp. 66-83.
- 454 Baker, B. N.
Making PERT work.
Space Aero, Vol. 37, No. 3,
Mar. 1962, pp. 58-60.
- 455 Barmby, J. G.
Analysis of weapons system effectiveness.
Aero/Space Eng. Vol. 20, No. 1, Jan. 1961,
pp. 14-5, 45-7.
- 456 Barmby, J. G.
The applicability of PERT as a management tool.
IRE - Trans. on Engrg. Mgmt. Vol. EM-9, No. 3,
Sept. 1962, pp. 130-1.
- 457 Beer, S.
Cybernetics & management. (Mgmt. Science Series)
John Wiley & Sons, N. Y. 1959. 214 p.
(Library No. 501, B39)
- 458 Beller, W.
PERT's horizon beginning to widen.
Missiles & Rockets. Vol. 9,
July 17, 1961, p. 110.

- 459 Bellman, R. et al
Application of dynamic programming to the
synthesis of logical systems.
Ass'n. Comp. Mach. J. Vol. 6, No. 10,
Oct. 1959, pp. 486-93.
- 460 Bennion, E. G.
Econometrics (and linear programming) for
management (decision making aids in business).
Harv. Bus. Rev. Vol. 39, No. 2,
Mar. 1961, pp. 100-12.
- 461 Bialik, J. J.
Another look at team contracting.
IRE - Trans. Engrg. Mgmt. Vol. EM-7, No. 2,
June 1960, pp. 67-9.
- 462 Bildson, R. A., Gillespie, J. R.
Critical-path planning - PERT integration.
Oper. Res. Vol. 10, No. 6, Nov. - Dec. 1962.
pp. 909-12.
- 463 Bloom, W.
Line-of-balance technique directs decision making.
Aerospace Mgmt. Vol. 4, No. 12, Dec. 1961, pp. 57-61.
- 464 Boback, E. T.
The design, implementation, & operation of a
PERT system on a space program.
Aerospace Corp. TDR-930 (2408)-TR2, Feb. 1962, 55 pp.
AD 277696
- 465 Boehm, G. A. W.
Helping the executive to make up his mind
(Decision theorists comes to rescue with CPM,
PERT, linear programming, etc.)
Fortune. Vol. 65, April 1962, pp. 128-31.
- 466 Bonchonsky, J.
PERT's place in subcontracting.
Aerospace Mgmt. Vol. 5, No. 1,
Jan. 1962, pp. 48-50.
- 467 Borklund, B.
How we mismanage the mechanical moron.
Armed Forces Mgmt. Vol. 6,
July 1960, pp. 22-3, 66.
- 468 Boulanger, D. G.
PERT: Case study application with analysis.
Adv. Mgmt. Vol. 26, July-Aug. 1961, pp. 8-12.

- 469 Bovaird, R. L., Goldman, A. S., Slattery, T. B.
Concepts in operational support research.
Mgmt. Sci. Vol. 8, No. 2, Jan. 1962, pp. 113-137.
- 470 Bragg, R. W., Hincks, E. B.
Networks of decentralized decisions under
central management.
Aerospace Engr. Vol. 20, No. 6, June 1961, pp. 14-20.
- 471 Burriss, S. W.
The role of mechanization in management.
IAS - Paper 62-157, June 1962, 6 pp. (Lib. Acc. No. 21985).
- 472 Cabell, C. P.
Integrated programming; simplified version
of PERT.
Plant Eng. Vol. 16, No. 9, Sept. 1962, pp. 106-12.
- 473 Caleo, R. L.
PERT & you.
Admin. Mgmt. Vol. 23, No. 3,
Mar. 1962, pp. 13-5.
- 474 Carlson, A. E.
Toward a philosophy of systems & procedures
management. (Smoothly operating data processing
systems combines structure & technique).
Systems & Proc. Mag. Vol. 11, Feb. 1960, pp. 2-6.
- 475 Carroll, J. M.
PERT requirements on increase.
Electronics. Vol. 34, Nov. 17, 1961,
pp. 30-1.
- 476 Charnes, A., Cooper, W. W.
Management of models & industrial applications
of linear programming.
John Wiley & Sons, N.Y., 1961, 2 Vol.
467 pp.; 411 pp
- 477 Chernoff, H., Moses, L. E.
Elementary decision theory (statistics as
science of decision making under uncertainty).
John Wiley & Sons, N.Y. 1959. 364 p.
- 478 Churchman, C. W.
How is planning possible.
In operations research for management.
McClosky, J. M., Coppinger, J. M. eds.
John Hopkins Press, Baltimore. 1956,
Vol. 2, pp. 401-13.

- 479 Churchman, C. W.
Prediction & optimal decision.
Prentice Hall, Inc., N.J. 1961. 394 p.
- 480 Clark, C. E.
Optimum allocation of resources among
activities of a network.
J. Indus. Eng. Vol. 12, No. 1,
Jan.-Feb. 1961, pp. 11-7.
- 481 Clark, C. E.
The PERT model for the distribution of an
activity time.
Oper. Res. Vol. 10, No. 3, May-June 1962,
pp. 405-6.
- 482 Clarke, R. W.
Activity costing - key to progress in critical
path analysis.
IRE - Trans on Engrg. Mgmt. Vol. EM-9, No. 3.
Sept. 1962, pp. 132-5.
- 483 Communications shorthand for management (PERT, CPM).
Steel, Vol. 151, No. 21, Nov. 19, 1962, pp. 75-8.
- 484 Conway, R. W., Maxwell, W. L.
Network dispatching by the shortest operation
discipline; production scheduling process.
Oper. Res. Vol. 10, No. 1, Jan. 1962, pp. 51-73.
- 485 Critical path method enthusiasts claim bonus
benefits.
Eng. News-Rec. Vol. 169, Aug. 9, 1962,
pp. 42-4.
- 486 Culliton, J. W.
Age of synthesis (for management).
Harv. Bus. Rev. Vol. 40, No. 5,
Sept.-Oct. 1962, pp. 36-8.
- 487 Dalleck, W. C.
Solve tomorrow's problems today with a computer
(system simulation).
Bsns. Mgmt. Vol. 21, No. 10, Oct. 1961, pp. 51-5.
Same - condensed - Mgmt. Rev. Vol. 50, No. 11,
Nov. 1961, pp. 55-7.
- 488 Daniel, D. R.
Management information crisis.
Harv. Bus. Rev. Vol. 39, No. 5
Sept. 1961, pp. 111-21.
- 489 Dantzig, G. B.
On the shortest route through a network.
Mgmt. Sci. Vol. 6, No. 2, Jan. 1960, pp. 187-90.

- 490 Dickey, E. R. et al
Integrated approach to administrative systems
& data processing.
Systems & Proc. J. Vol. 13, No. 3, Mar. 1962, pp. 26-32.
- 491 Diebold, J.
Four problems you cannot shirk (Management problem
areas posed by the computer).
Admin. Mgmt. Vol. 23, No. 7, July 1962
pp. 24-5, 68-9.
- 492 DOD and NASA guide, PERT cost systems design.
NASA - June 1962, 145 p.
Summary - Missiles & Rockets, Vol. 11, No. 6,
Aug. 6, 1962, p. 38.
(Library No. 20, 789)
- 493 Dreyfack, R.
Case for systems analysis.
Office Mgmt. & Am. Busns. Vol. 21,
Oct. 1960, pp. 32-4.
- 494 Driessnack, H. H.
PERT on the C-141.
Aerospace Mgmt. Vol. 5, No. 8,
Aug. 1962, pp. 32-5.
- 495 Dwyer, E. D.
Action reporting (effectiveness of automatic
data processing in management information systems).
Controller. Vol. 30, No. 6, June 1962, pp. 290-3.
- 496 Eckman, D. P. ed.
Systems: Research & design.
John Wiley & Sons, N.Y., 1961. 328 p.
- 497 Elwell, J. M.
How to organize for a total system.
Systems & proc. Mag. Vol. 12, No. 9,
Sept. 1961, pp. 4-8.
- 498 Elwell, J. M.
Total systems concept and how to organize for it.
Comp. & Automat. Vol. 10, No. 9, Sept. 1961,
pp. 9-13.
- 499 Ernst, M. L.
Operations research and the large strategic problems.
Oper. Res. Vol. 9, No. 4, July 1961, pp. 437-45.
- 500 Fazar, W.
Advanced management systems for advanced weapons
systems.
IRE - 5th Ann. Conv. on Military Electronics,
June 1961, pp. 32-43.

- 501 Fazar, W.
Navy's PERT System.
Fed. Accountant. Vol. 11, No. 12,
Dec. 1961, pp. 123-36.
- 502 Fazar, W.
Program evaluation & review technique.
Amer. Statistician. Vol. 13, No. 2,
April 1959, p. 10.
- 503 Fleming, Q. W., Ervin, C. W.
Management aids for program control.
Aerospace Mgmt. Vol. 5, No. 7,
July 1962, pp. 26-30.
- 504 Forrester, J. W.
Industrial dynamics.
MIT Press/Wiley & Sons, N. Y. 1961, 464 pp.
- 505 Frambes, R.
New big step for PERT.
Aerospace Mgmt. Vol. 4, No. 10,
Oct. 1961, pp. 77-8.
- 506 Freeman, R. J.
(Computational simplifications for) a
generalized PERT.
Oper. Res. Vol. 8, No. 2, March-April 1960,
p. 281.
- 507 Fry, B. L.
SCANS - a sophisticated management technique
developed as a follow-on to PERT.
Aerospace Mgmt. Vol. 4, No. 10, Oct. 1961, p. 79.
- 508 Fry, B. L.
SCANS - System description and comparison
with PERT.
IRE - Trans. on Engrg. Mgmt. Vol. EM-9, No. 3,
Sept. 1962, pp. 122-9.
- 509 Fulkerson, D. R.
Expected critical path lengths in PERT networks.
Rand - RM-3075-PR, Mar. 1962, 19 pp.
also in: Oper. Res. Vol. 10, No. 6, Nov.-Dec. 1962,
pp. 8-8-17.
(Library Acc. No. 20,450)
- 510 Gaddis, P. O.
Massive engineering; the managers role.
Mech. Engrg. Vol. 84, No. 3, Mar. 1962, pp. 36-8.

- 511 Gallagher, J. D.
Management information systems and the computer.
Amer. Mgmt. Assoc., N.Y. 1961, 191 pp.
- 512 Geddes, P.
How good is PERT
Aerospace Mgmt. Vol. 4, No. 9,
Sept. 1961, pp. 41-3.
- 513 Geddes, P.
Manage and survive (use of computer for
scientific control).
Aerospace Mgmt. Vol. 5, No. 10,
Oct. 1962, pp. 20-5.
- 514 Geddes, P.
New "Road-map" for total management control.
Aerospace Mgmt. Vol. 4, No. 8,
Aug. 1961, pp. 36-8.
- 515 Geddes, P.
The year of management systems.
Aerospace Mgmt. Vol. 5, No. 3,
Mar. 1962, pp. 89-91.
- 516 Geisler, M. A., Steger, W. A.
How to plan for management in new systems
(games & simulation).
Harv. Busn. Rev. Vol. 40, No. 5,
Sept. - Oct. 1962, pp. 103-10.
- 517 Gerber, T. L.
Toward an effective management information system.
Jour. Mach. Accting. Vol. 13, No. 10,
Oct. 1962, pp. 26-7.
- 518 Goode, H. H.
Intracompany systems management.
IRE - Trans. Engrg. Mgmt. Vol. EM-7, No. 1,
Mar. 1960, pp. 14-9.
- 519 Grossman, H.
The development of SCANS - a network system
for management control systems.
Systems Dev. Corp., Santa Monica, California,
FN-4556-1, 1961, 1 Vol.
- 520 Grubbs, F. E.
Attempts to validate certain PERT statistics
or "Picking on PERT".
Oper. Res. Vol. 10, No. 6,
Nov.-Dec. 1962, pp. 912-5.

- 521 Haddock, W. N., Bahr, G. L., Finch, R. L.
Vertical integration in weapon system management.
AF, Air Univ. Dec. 1, 1960, 33 pp. (Lib. Acc. No. 5096).
- 522 Hamlin, F.
How PERT predicts for the navy,
Armed Forces Mgmt. Vol. 5, No. 10,
July 1959, pp. 19-20.
- 523 Hatry, H. P.
Economic analysis as an aid to system selection.
Jour. of Indust. Engrg. Vol. 13, No. 4,
July - Aug. 1962, pp. 207-12.
- 524 Hattery, L. H.
Executive control & data processing.
Anderson Kramer Assoc., Washington, D. C.
1959, 92 pp.
- 525 Hawkes, R.
Computer simulates executive's problems
(Lockheed's aerospace business simulator).
Aviat. Week. Vol. 76, June 18, 1962, pp. 87-8.
- 526 Hawthorne, R.
PERT and PEP; useful tools or timewasters
Space Aero. Vol. 36, No. 8, Aug. 1961, pp. 58-9.
- 527 Healy, T. L.
Activity subdivision and PERT probability
statements.
Oper. Res. Vol. 9, No. 3, May 1961, pp. 341-8;
Discussion, pp. 348-50, also No. 6, Nov. 1961,
pp. 909-10.
- 528 Hearle, E. F. R.
How useful are "scientific" tools of management
Rand No. P-2260, Mar. 24, 1961, 7 pp.
(Library Acc. No. 14, 767)
- 529 Heembrock, M. R.
A method for evaluation of defensive weapon
delivery systems
IRE - Trans. Engrg. Mgmt. Vol. EM-9, No. 1,
March 1961, pp. 23-8.
- 530 Heyne, J. B.
Planning for research in management control
systems - a suggested model.
Jour. of Indust. Engrg. Vol. 12, No. 4,
July - Aug. 1961, pp. 253-63.

- 531 Hickey, A. E.
The systems approach; can engineers use the
scientific method
IRE - Trans. Engrg. Mgmt. Vol. EM-7, No. 2,
June 1960, pp. 72-80.
- 532 Hockman, J.
Streamlining your operation. Invest in systems
men for quick returns.
Admin. Mgmt. Vol. 22, No. 8,
Aug. 1961, pp. 52-3.
- 533 Hoffman, A., Gomory R.
Finding optimum combinations (in complicated
problems).
Int'l Sci. & Tech. Vol. 1, No. 7,
July 1962, pp. 26-33.
- 534 Hollis, C. R.
Programming for control of contract performance.
NAA Bull. Vol. 41, Mar. 1960, pp. 19-30.
- 535 Hoos, I. R.
When the computer takes over the office.
Harvard Bus. Rev. Vol. 38, No. 4,
July - Aug. 1960, pp. 102-12.
- 536 Hopkins, R. C.
A systematic procedure for system development.
IRE - Trans. Engrg. Mgmt. Vol. EM-8, No. 1,
Mar. 1961, pp. 77-86.
- 537 Hosier, W. A.
Pitfalls & safeguards in real-time digital
systems with emphasis on programming.
IRE - Trans. on Engr. Mgmt. Vol. EM-8, No. 2,
June 1961, pp. 99-115.
- 538 Huish, H. A.
Keeping critical-path up-to-date is no problem
with a computer.
Plant. Vol. 24, No. 4, April 1962, pp. 15-9.
- 539 Industry borrows control tool that's closing
missile gap; program evaluation review technique.
Iron Age. Vol. 190, July 5, 1962, pp. 62-4.
- 540 Jarett, I. M.
Electronic & the management art.
Adv. Mgmt. - Office Exec. Vol. 1, No. 6,
June 1962, pp. 7-10.

- 541 Jerome, W. T.
Executive control - the catalyst.
John Wiley & sons, N.Y. 1961, 275 pp.
- 542 Jodker, J.
PERT: a recent control concept.
NAA Bull. Vol. 43, No. 1, Jan. 1962,
pp. 81-6.
Also in Comp. & Automation, Vol. 11, No. 3,
Mar. 1962, pp. 16-8.
- 543 Karp, H. R.
Using corporate models for business control.
Control. Engr. Vol. 7, No. 9, Sept. 1960, pp. 135-7.
- 544 Kast, F., Rosenzweig, J.
A survey of intra-company impact of weapon
system management.
IRE - Trans. Engrg. Mgmt. Vol. EM-9, No. 1,
March 1962, pp. 37-40.
- 545 Kavanagh, T. F.
TABSOL - the language of decision making.
Computer & Autom. Vol. 10, No. 9,
Sept. 1961, pp. 15-22.
- 546 Kelley, J. E.
Critical path planning & scheduling mathematical basis.
Operations Res. Vol. 9, No. 3, May-June, 1961, pp. 296-320.
- 547 Kelley, J. E.
Parametric programming and the primal-dual algorithm.
Oper. Res. Vol. 7, No. 3, June-July 1959, pp. 327-34.
- 548 Kelley, J. E., Wilson, L. D., Berman, H.
Using critical path programming.
Automation. Vol. 9, No. 11, Nov. 1962, pp. 90-5.
- 549 Kenney, H. D.
Systems from the management viewpoint.
Systems & Proc. J. Vol. 13, No. 5,
May 1962, pp. 10-13.
- 550 Klass, P. J.
PERT/PEP management tool use grows (in planning
& evaluating progress in development of complex
weapon systems).
Aviation Week. Vol. 73, Nov. 1960, p. 85.

- 551 Klass, P.
PERT plan eases management problems.
Aviat. Week. Vol. 74, April 10, 1961, pp. 80-1.
- 552 Koch, E. G.
Practical approach to management planning & control.
Adv. Mgmt. Vol. 24, No. 7, July 1959, pp. 10-4.
- 553 Kushnerick, J. P.
Command Control at Honeywell.
Aerospace Mgmt. Vol. 5, No. 7, July 1962,
pp. 12-7.
- 554 Kurk, M. I.
Operational sequence diagrams in system design.
Human Factors, Vol. 3, No. 1, Mar. 1961, pp. 66-73.
- 555 Labiner, K. H., Tupac, J. D.
Experience in the use of a simulation laboratory
in the design of a management information system.
Rand Corp., Santa Monica, Calif. Rep. No. P-2115,
Oct. 1960, 8 pp.
(Library Acc. No. 14,758)
- 556 Lach, E. L.
Total systems concept.
Systems & Proc. Mag. Vol. 11, No. 11,
Nov. 1960, pp. 6-7.
- 557 Lasser, D.
Topological ordering of a list of randomly
numbered elements of a network.
Commun. of ACM, Vol. 4, No. 4,
April 1961, pp. 167-8.
- 558 Leutert, W. W.
Optimization of business operation (application of
mathematical tools).
Comp. & Automat. Vol. 9, No. 7, July 1960, pp. 5-9.
Discussion, Vol. 10, No. 1, Jan. 1961, p. 21;
No. 3, Mar. 1961, p. 21.
- 559 Lewis, J.
Where PERT is headed.
Armed Forces Mgmt. Vol. 7, No. 10,
July 1961, pp. 16-8.
- 560 Lewis, R. B.
Management control techniques for improving profits.
Prentice-Hall, Englewood, N. J., 1962, 166 pp.

- 561 Livingston, J. S., Fox, J. R., Fazar, W.
PERT gains new dimensions.
Aerospace Mgmt. Vol. 5, No. 1, Jan. 1962,
pp. 32-6.
- 562 Long range planning becomes a must (Amer. Man.
Assn. forum).
Steel. Vol. 150, No. 26, June 25, 1962, pp. 21-2.
- 563 McGrath, J. E., Nordlie, P. G., Vaughan, W. S.,
A systematic framework for comparison of
system research methods.
Human Sciences Research, Inc. Rep. No. 1;
HSR-TN-59/7-sm, Nov. 1959, 1 Vol.
AD 229923.
- 564 McGuire, W. J.
Operations research in management planning &
control.
Jour. Indust. Engr. Vol. 10, No. 4,
July - Aug. 1959, pp. 308-12.
- 565 McLean, J. D.
The "Core Concept" of systems management.
IRE - Trans. Engrg. Mgmt. Vol. EM-8, No. 2,
June 1961, pp. 92-4.
- 566 McLean, J. D.
Group contracting.
IRE - Trans. on Engrg. Mgmt. Vol. EM-6, No. 3,
Sept. 1959, pp. 71-5.
- 567 MacNew, T.
NASA's plans for PERT.
Aerospace Mgmt. Vol. 4, No. 12,
Dec. 1961, pp. 24-8.
- 568 Malcolm, D. G. comp.
Bibliography on use of simulation in management
analysis.
Oper. Res. Vol. 8, No. 2, Mar.-April 1960, pp. 169-77.
- 569 Malcolm, D. G.
Extensions and applications of PERT as a system
management tool.
Jour. Armed Forces Mgmt. Assoc. Vol. 1,
1961, pp. 53-6.
- 570 Malcolm, D. G.
PERT: an automated R/D management information system.
Proc. 12th Ann. Nat'l Amer. Inst. of Indus.
Engrs. Conf. 1961, pp. 77-89.

- 571 Malcolm, D. G.
PERT: a designed management information system.
Ind. Mgmt. Vol. 3, No. 6, June 1961, pp 23-32.
- 572 Malcolm, D. G.
Real-time management control in large scale
man-machine system (application of SAGE exper-
ience to design of management control systems).
Jour. Ind. Engrg. Vol. 11, No. 2,
March-April 1960, pp. 103-10.
- 573 Malcolm, D. G.
A Soviet challenge to American management systems
(the use of the management Vostok).
Armed Forces Mgmt. Vol. 9, No. 1, Oct. 1962 pp. 25-9.
- 574 Malcolm, D. G., Rowe, A. J. eds.
Management control systems.
John Wiley & Sons, N. Y. 1960, 375 pp.
- 575 Manne, A. S.
Linear programming and sequential decisions
Mgmt. Sci. Vol. 6, No. 3, April 1960, pp. 259-67.
- 576 Mantel, S.
Production Logic: New concept in complete
management thinking.
Adv. Mgmt. Vol. 25, No. 8, Aug. 8, 1960, pp. 6-11.
- 577 Marschak, T. A.
Strategy and organization in a system development project.
Rand, No. P-1901-RC, Feb. 3, 1960, 59 pp. AD 260195.
- 578 Martin, N. M.
Critical path method expedites IBM projects.
Eng. News - Rec. Vol. 169, July 5, 1962,
pp. 34-6.
- 579 Mattessich, R.
Budgeting models and system simulation.
Accounting Rev. Vol. 36, No. 7,
July 1961, pp. 384-97.
- 580 Maynes, W.
What's wrong with PERT
Aerospace Mgmt. Vol. 5, No. 4, April 1962, pp. 20-5.
- 581 Mesarovic, M. D.
Dynamic response of large complex systems.
Franklin Inst. Jour. Vol. 269, No. 4,
April 1960, pp. 274-98.

- 582 Mesarovic, M. D.
The control of multivariable systems-MIT,
Technology Research Monograph.
John Wiley & Sons, N. Y. 1960, 112 pp.
- 583 Miller, D. W., Starr, M. K.
Executive decisions and operations research.
Prentice-Hall, Englewood, N. J., 1960, 446 pp.
2nd Ed. 1961.
(Library No. 658.072, M61)
- 584 Miller, N.
Maps for managers show problem areas of big
defense jobs.
Wall Street Jour. Vol. 158, Aug. 16, 1961, p. 1.
- 585 Miller, N. C.
PERT and critical path; management by chart.
Mgmt. Rev. Vol. 50, No. 11, Nov. 1961,
pp. 49-51.
Also in Supervisory Mgmt. Vol. 7, No. 1,
Jan. 1962, pp. 44-5.
- 586 Miller, R. W.
How to plan and control with PERT.
Harv. Bus. Rev. Vol. 40, No. 2,
Mar. -April 1962, p. 93.
- 587 Moore, F.
Manufacturing management (Irwin series in management).
Richard Irwin, Homewood, Ill. 1961. 3rd. ed. 853 pp.
- 588 Nakayama, Y.
(BuWep) uses PERT - Milestone system.
Navy Mgmt. Rev. Vol. 6, No. 5, May 1961, pp. 8-9.
- 589 Nakayama, Y.
PERT - Milestone system readied for all Navy weapons.
Aerospace Mgmt. Vol. 5, No. 4, April 1962, pp. 46-50.
- 590 NASA - PERT
NASA - NPC 101, Sept. 1, 1961, 53 pp.
(Library Acc. No. 13,170)
- 591 Neal, H. T.
Some criticisms of systems management.
IRE - Trans. Engrg. Mgmt. Vol. EM-8, No. 2,
June 1961, pp. 94-9.

- 592 Neimann, R., Learn, R.
Mechanization of PERT system provides timely
information.
Navy Mgmt. Rev. Vol. 5, No. 8, Aug. 1960, pp. 10-2.
- 593 Nelson, E. C.
On-Line Data processing: a new management tool.
Oper. Res. Soc. Am. May 1961, 5 pp.
(Library Acc. No. 7128)
- 594 Neuschel, R. F.
Strengthening management reports.
In Management by System.
McGraw-Hill, N. Y. 1960, pp. 204-24.
- 595 Optner, S. L.
Systems analysis for business management.
Prentice-Hall, Englewood Cliffs, N. J.
1960, 276 pp.
(Library No. 621.81, 07)
- 596 Owen, W. V.
Looking toward a theory of industrial management.
Adv. Mgmt. Vol. 25, No. 3, March 1960, pp. 13-7.
- 597 Paskman, M., Livingston, J. S.
Is PERT what management needs? No - Yes.
Aerospace Mgmt. Vol. 5, No. 10, Oct. 1962, pp. 52-8.
- 598 Peart, R. M.
Optimizing systems when components have discontinuous
cost functions.
Oper. Res. Vol. 9, No. 4, July 1961, pp. 468-78.
- 599 Peck, M. J., Scherer, F. M.
The weapons acquisition process: An economic analysis.
Harv. Univ. Press, Cambridge, 1962, 736 pp.
Abst. in Aviat. Week. Vol. 77, No. 9, Aug. 27, 1962,
pp. 99-102, by Gregory, W. H.
- 600 People factor "taped" for decision makers-
called Simulmatics.
Steel. Vol. 150, April 30, 1962, pp. 80-1.
- 601 PERT and companion cost system handbook.
NASA. Oct. 1962, 1 Vol.
(Library Acc. No. 22,898)
- 602 PERT avoids potential problems.
Steel. Vol. 149, Dec. 4, 1961, pp. 48-50.

- 603 PERT - a programming and control technique
for space age management.
AF Systems Command, Ballistic Systems Div.
Calif. 1961, 17 pp.
AD 263538
- 604 Petersen, D. N.
PACE - a new industrial engineering technique
for management (Experience at Northrop).
Jour. of Ind. Engrg. Vol. 11, No. 4,
July - Aug. 1960, pp. 304-12.
- 605 Peterson, E. L.
Statistical analysis and optimization of systems.
John Wiley & Sons, N. Y., 1961, 190 pp.
- 606 Pocock, J. W.
PERT as an analytical aid for program planning -
its payoff and problems.
Oper. Res. Vol. 10, No. 6, Nov. -Dec. 1962,
pp. 893-903.
- 607 Pollack, M., Wiebenson, W.
Solutions of the shortest-route problem.
Oper. Res. Vol. 8, No. 2, March 1960.
pp. 224-30.
Discussion, Peart, R. M. et al in Vol. 8, No. 11,
Nov. 1960, pp. 866-8.
- 608 Porter, E. H.
Parable of the spindle (application of systems
theory to organization problems).
Harv. Bus. Rev. Vol. 40, No. 3,
May-June 1962, pp. 58-66.
- 609 Program evaluation research task - PERT.
Navy, Buweps, Summary, Phase I, July 1958,
31 pp.
(Library Acc. No. 4129)
- 610 Postley, J. A.
The design of complex management control systems.
Rand. No. RM 2483, Nov. 11, 1959, 19 pp.
Contract AF49(638)700
(Library Acc. No. 14, 304)
- 611 Postley, J. A.
Systems design for management automation.
Rand. No. P-1783, Aug. 28, 1959, 9 pp.
(Library Acc. No. 14, 783)

- 612 Proceedings of the management control systems
 symposium.
 System Devel. Corp. , Santa Monica, Calif.
 July 29-31, 1959, 1 Vol.
- 613 Radell, N. J.
 Operations research techniques as a basis for
 system design.
 Systems and Proceed. Mag. Vol. 12, No. 3,
 March 1961, pp. 13-7.
- 614 Rafferty, J. A.
 Do the management systems fit together ?
 Aerospace Mgmt. Vol. 5, No. 5, May 1962, pp. 48-50.
- 615 RAMPS (Resource Allocation and Multi-project
 Scheduling) - Multi-task successor to PERT.
 Admin. Mgmt. Vol. 23, No. 9, Sept. 1962, p. 33.
- 616 Ranck, N. H., Farr, R. O.
 PLANNET (Planning Network) can help PERT.
 Aerospace Mgmt. Vol. 5, No. 2, Feb. 1962,
 pp. 18-21.
- 617 Rapoport, L. A., Drews, W. P.
 Mathematical approach to long-range planning.
 Harv. Bus. Rev. Vol. 40, No. 3,
 May-June 1962, pp. 75-87.
- 618 Rathe, A. W.
 Management control and industrial engineering.
 Jour. of Ind. Engrg. Vol. 12, No. 1,
 Jan. -Feb. 1961, pp. 77-82.
- 619 Ronayne, M. F.
 Operations research: a keystone (Management
 science with a future).
 Systems & Proceed. Mag. Vol. 11, No. 9,
 Sept. 1960, pp. 22-6.
- 620 Rosenzweig, J.
 The weapon systems management concept and
 electronic data processing.
 Mgmt. Sc. Vol. 6, No. 2, Jan. 1960, pp. 149-164.
- 621 Ross, R. J.
 For long-range planning; rotating planners
 and doers (rotating organization structure).
 Harv. Bus. Rev. Vol. 40, No. 1, Jan. -Feb. 1962,
 pp. 105-15.

- 622 Rowe, A. J.
Management by computer - how and when ?
Aerospace Mgmt. Vol. 4, No. 10,
Oct. 1961, pp. 66-72.
- 623 Rowe, A. J.
A research approach to management controls.
Jour. of Ind. Engrg. Vol. 11, No. 3,
May-June 1960, pp. 251-8.
- 624 Rudkin, J. B.
The impact of industrial control systems on
managerial responsibility.
Automation Prog. Vol. 4,
Nov. 1959, pp. 372-3.
- 625 Savage, P. P.
PERT operating manual.
MH Aero Rep. No. A62 752A2(1), April 1962, 29 pp.
(Library Acc. No. 18,272); MH Aero Rep. No. A62 752A2(1A).
June 1962, 37 pp. (Library Acc. No. 16,911); MH Aero
Engineering Manual, No Date, 1 Vol. (Library
Acc. No. 22,787)
- 626 Schaeffer, K. H., Shapero, A.
The structuring and analysis of complex system
problems.
Stanford Res. Inst. May 1961, 25 pp.
(Library Acc. No. 10,118)
- 627 Schall, W. C.
Industrial dynamics (application of servomechanism
practice mathematical model-building, and digital
computation to managerial problems of complex
systems).
ISA Jour. Vol. 9, No. 9, Sept. 1962, pp. 69-73, 76.
- 628 Seares, A. N.
The consolidated functions concept (in decentralized
operations).
Adv. Mgmt. Vol. 25, No. 6, June 1960, pp. 22-8.
- 629 Shapero, A.
A method of performing human engineering analysis
of weapons systems.
AF-WADC-TR-59-784. Sept. 1959, 68 pp.
(Library Acc. No. 4690)
- 630 Shiff, R., Negus, A.
Lets take a simple approach to systems (office).
Office Mgmt. & Amer. Bus. Vol. 21, No. 7,
July 1960, pp. 48-52; No. 8, Aug. 1960, pp. 34-6.

- 631 A Signal Corps concept for multi-project management - Project Comet - a project to develop a computer operated management evaluation technique.
Army, Signal Corps. May 1962, 44 pp.
AD 276938 (Library Acc. No. 21,998)
- 632 Silverman, M.
Techniques of management (PERT).
Product Engrg. Vol. 33, Oct. 15, 1962, pp. 73-8.
- 633 Simon, H. A.
The new science of management decision.
Harper & Bros., N. Y. 1960, 50 pp.
- 634 Sobczak, T. V.
Basic networks can make or break your system.
Aerospace Mgmt. Vol. 5, No. 5,
May 1962, pp. 24-6.
- 635 Sobczak, T. V.
A look at network planning.
IRE - Trans. on Engrg. Mgmt. Vol. EM-9, No. 3,
Sept. 1962, pp. 113-15.
- 636 Space-age scheduling arrives in CPM (critical-path technique).
Chem. W. Vol. 87, Oct. 15, 1960, pp. 74-6.
- 637 Spencer, S. A.
Dark at the top of the stairs; what higher management needs from information systems.
Mgmt. Rev. Vol. 51, No. 7,
July 1962, pp. 4-12.
- 638 Squires, C. H.
Requirements for subcontractor PERT program.
MH Aero R-ED 1227, Dec. 11, 1961, 7 pp.
(Library Acc. No. 10,903)
- 639 Stoller, D. S., Van Horn, R. L.
Design of a management information system.
Rand No. P-1362, Dec. 1958, 7 pp.
(Library Acc. No. 14,777)
- 640 Sullivan, A. M.
Management's fight against "Technophobia".
Dun's Rev. & Mod. Ind. Vol. 77, No. 4,
April 1961, pp. 63-4, 66-8.

- 641 Taylor, W. S.
Full-spectrum management improvement (through
system simplification).
Adv. Mgmt. Vol. 26, No. 11, Nov. 1961, pp. 9-13.
- 642 Taylor, W. S.
System simplification.
J. Indus. Eng. Vol. 12, No. 1, Jan/Feb 1961, pp. 3-10.
- 643 Teaching computer to dissect a business (Leviathan
project will simulate operations of a corporation or any
large group).
Bus. Week. May 5, 1962, pp. 60-2.
- 644 Thompson, V. B.
PERT, pro & con about this technique.
Data Proc. Vol. 3, No. 10, Oct. 1961, pp. 40-4.
- 645 Tucker, S. A.
Successful managerial control by ratio analysis.
McGraw-Hill, N.Y. 1961, 434 pp.
- 646 Tucker, S. A.
System of managerial control using "live" ratios
and control charts.
NAA Bull. Vol. 43, No. 12, Sec. 1, Aug. 1962, pp. 5-24.
- 647 Uhl, K. P.
Factorial design: aid to management.
Jour. Marketing. Vol. 26, No. 1, Jan. 1962, pp. 62-6.
- 648 Villers, R.
Dynamic management in industry.
Prentice Hall, Englewood Cliffs, N.J., 1960, 516 pp.
- 649 Waterman, P. Hodgson, W., Francis, C.
Planning philosophy for complex systems.
Naval Research Lab. No. NRL 5343, Aug. 3, 1959, 9 pp.
AD 225652
- 650 Weinwurm, G. F.
Computer management control systems through the
looking glass.
Mgmt. Sci. Vol. 7, No. 4, July 1961, pp. 411-9.
- 651 Welker, E. L., Horne, R. C.
Concepts associated with system effectiveness.
ARINC Res. Corp. Monograph No. 9, July 15, 1960.
- 652 Wynne, B. E.
Critical path method; an effective management tool.
Controller. Vol. 30, No. 6, June 1962, pp. 258-64.
- 653 Yoder, D.
Management theories as managers see them.
Personnel. Vol. 39, No. 7, July 1962, pp. 25-30.

SECTION VI

PLANNING AND SCHEDULING OF RESEARCH AND DEVELOPMENT

- 654 Achieving full value from R & D dollars.
AMA Mgmt. Rep. No. 69.
Amer. Mgmt. Assoc. N. Y. 1962, 108 pp.
- 655 Astrachan, H.
Better plans come from study of anatomy of an
engineering job.
Bus. Week. March 21, 1959, pp. 60-6.
- 656 Barish, N. N.
Economic analysis for engineering & managerial
decision-making.
McGraw-Hill, N. Y. 1962. 729 p.
- 657 Bennett, K. W.
How quick reaction capability (technique) speeds
product development.
Iron Age. Vol. 187, June 1, 1961, pp. 47-9.
Abst. in Mgmt. Rev. Vol. 50, No. 7,
July 1961 pp. 39-41
- 658 Bennett, K. W.
Is R & D spending paying off
Iron Age. Vol. 189, Jan. 4, 1962, pp. 104-5.
- 659 Berman, H.
The critical path method for project planning
& control.
Constructor. Vol. 43, No. 9, Sept. 1961, pp. 24-5.
- 660 Bierer, B. B.
Marketing R & D for military products.
Harv. Bus. Rev. Vol. 40, No. 5,
Sept. - Oct. 1962, pp. 111-20.
- 661 Bigelow, C. G. comp.
Bibliography on project planning & control by
network analysis. 1959-1961.
Oper. Res. Vol. 10, No. 5,
Sept. - Oct. 1962, pp. 728-31.
- 662 Binsel, P. W., McEachron, W. D.
Descriptive economics & venture analysis.
Ind. & Engr. Chem. Vol. 54, No. 2,
Feb. 1962, pp. 34-9.

- 663 Branch, M. C.
The corporate planning process.
Amer. Mgmt. Assoc., N. Y., 1962. 253 p.
- 664 Bright, J. R. ed.
Technological planning on the corporate level.
Harv. Grad School of Bus. Admin., Boston
1962, 253 p.
- 665 Brooke, E. R.
Project planning.
Machine Design. Vol. 33, No. 16,
Aug. 3, 1961, pp. 76-80.
- 666 Brown, H. C.
What is wrong with industrial research?
Res/Dev. Vol. 11, No. 11,
Nov. 1960, pp. 101 +.
- 667 Brown, R. C.
Economic evaluation of research projects.
Am. Assoc. Cost Engrgs. - Bul. Vol. 1, No. 5,
Dec. 1959, pp. 88-9.
- 668 Burgess, R. E.
Criteria for the evaluation of industrial scientific
research.
Planning ahead for Profits, pp. 104-16.
AMA, Res. & Devel. Div. 1958 (AMA Management Rep. No. 3).
(Library No. 658.1, AM-35)
- 669 Busch, G. A.
Prudent-managers forecasting.
Harv. Bus. Rev. Vol. 39, No. 3,
May-June 1961, pp. 57-64.
- 670 Cairns, R. W.
Planning for research: the problems involved.
Research Mgmt. Vol. 4, No. 2, Summer, 1961,
pp. 107-18.
- 671 Cassells, L., Randall, R. L.
Six steps to better planning.
Nations Busns. Vol. 49, No. 8,
Aug. 1961, pp. 42-3.
- 672 Christensen, B. M.
How to take the guesswork out of project planning
(critical path method).
Iron Age. Vol. 188, No. 5, Aug. 3, 1961,
pp. 67-9.

- 673 Christensen, B. M.
Networks models for project scheduling.
Mach. Des. Vol. 34: pp. 114-8, May 10;
pp. 173-7, May 24; pp. 132-8, June 7;
pp. 155-60, June 21; pp. 105-11, July 5;
pp. 136-40, July 19, 1962.
- 674 Cooperative research advances engineering knowledge.
Prod. Engrg. Vol. 30, No. 34, Aug. 24, 1959,
pp. 27 +.
- 675 Co-op research: boon to small firms.
Steel. Vol. 151, No. 5, July 30, 1962,
pp. 50-5.
- 676 Cosinuke, W.
Critical-path technique for planning & scheduling.
Chem. Engr. Vol. 69, June 25, 1962, pp. 113-8.
- 677 CPM enthusiasts claim bonus benefits.
Engrg. News-Rec. Vol. 169,
Aug. 9, 1962, pp. 42-4.
- 678 Davidson, H. O.
Management, engineering & scientific functions.
Jour. Indust. Engrg. Vol. 11, No. 2,
Mar. -April 1960, pp. 120-4.
- 679 Davies, D. L. ed
The design and analysis of industrial experiments
(examples are chemical, but basic principles are
capable of extension & application to other fields).
Hafner Pub. Co., N. Y. 1960, 636 p.
- 680 Davis, K.
The role of project management in scientific
manufacturing.
IRE - Trans. on Engrg. Mgmt. Vol. EM-9 No. 3,
Sept. 1962, pp. 109-12.
- 681 Developing Product Strategy.
Amer. Mgmt. Assoc. Mgmt. Rep. No. 39, 1959, 352 p.
- 682 Dogrusoz, H.
(Product & weapon systems) Development programming.
Oper. Res. Vol. 9, No. 5, Sept. - Oct. 1961, pp. 753-5.
- 683 Don't overlook by-product profit. (Tools, processes
and products that are unexpected results of research).
Steel. Vol. 149, Dec. 25, 1961, pp. 24-6.
Same - Mgmt. Rev. Vol. 51, No. 3, Mar. 1961, pp. 34-7.

- 684 Dorfman, W.
Resource allocation & scheduling for multiple projects.
Tappi. Vol. 45, No. 7, July 1962, pp. 182A-3A.
- 685 Dressel, R. L.
Input-output relationships as a forecasting tool.
(in defense contracting)
NAA Bull. Vol. 43, No. 6, June 1962, pp. 25-32.
- 686 Eaton, W. W.
Increased profits through application of computer technology.
ASME-AMA-Engineering Mgmt. Conf.
Sept. 1961, N.Y. - Paper 61 - Mgt. - 3.
- 687 Effective planning and evaluation of research and development expenditures (study by Controller's Institute Research Foundation).
Controller. Vol. 29, No. 5, May 1961, p. 252.
- 688 Eisner, H.
Generalized network approach to the planning & scheduling of a research project: PERT technique.
Oper. Res. Vol. 10, No. 1, Jan.-Feb. 1962, pp. 115-25.
- 689 Fazar, W.
Progress reporting in the Special Projects office. (PERT)
Navy Mgmt. Rev. Vol. 4, April 1959, pp. 9-15.
- 690 Flagle, C. D.
Probability-based tolerances in forecasting & planning.
Jour. of Indust. Engrg. Vol. 12, No. 2, Mar.-April 1961, pp. 97-101.
- 691 Fleming, Q. W., Ervin, C. W.
Management aids for program control.
Aerospace Mgmt. Vol. 5, No. 7, July 1962, pp. 26-30.
- 692 Fong, L. B. C.
A visual method of program balance & evaluation (at Diamond Ordnance Fuze Labs.)
IRE - Trans. on Engrg. Mgmt. Vol. EM-8, No. 3, Sept. 1961, pp. 160-3.
- 693 Freedman, P.
The principles of scientific research.
Pergamon Press, N.Y., 1960, 2nd ed. 228 p.

- 694 Freeman, R. J.
A generalized network approach to project activity sequencing (PERT).
IRE - Trans. Engrg. Mgmt. Vol. EM-7, No. 3, Sept. 1960, pp. 103-7.
- 695 Freeman, R. J.
Stochastic model for determining size and allocation of research budget.
IRE - Trans. on Eng. Mgmt. Vol. EM-7, No. 1, Mar. 1960, pp. 2-7.
- 696 Frishberg, M. C.
Least-cost estimating and scheduling (LESS) tells you how project is doing.
Hydrocarbon Proc. & Petr. Refiner. Vol. 41, No. 2, Feb. 1962, pp. 130-8.
- 697 Fulkerson, D. R.
A network flow computation for project cost curves.
Rand Corp. Rep. No. P-1957, Aug. 1960, 1 Vol.
Also in: Mgmt. Sci. Vol. 7, No. 2, Jan. 1961, pp. 167-78.
- 698 Fulkerson, D. R.
Increasing the capacity of a network: the parametric budget problem.
Mgmt. Sci. Vol. 5, No. 4, July 1959, pp. 472-83.
- 699 Fuller, D.
Organizing, planning & scheduling for engineering operations.
Industrial Educ. Instit., Boston, 1962, 350 p.
- 700 Garbarino, H. L.
Pitfalls of new-product development.
Industrial Research. Vol. 2, No. 4, Aug-Sept. 1960, pp. 27-30.
- 701 Gargiulo, G. R., Hannoeh, J., Hertz, D. B., Zang, T.
Developing systematic procedures for directing research programs.
IRE - Trans. Engrg. Mgmt. Vol. EM-8, No. 1, Mar. 1961, pp. 24-9.
- 702 Gavin, J. M.
Space-age technology; down to earth (Research yields civilian benefits as by-products.)
Supervisory Mgmt. Vol. 6, No. 5, May 1961, pp. 61-2.
- 703 Ginder, S. P.
Optimizing R & D bids (PERT).
Mach. Des. Vol. 34, No. 10, April 26, 1962, pp. 190-5.

- 704 Glaser, L. Young, R.
Critical path planning & scheduling: application
to engineering & construction.
Chem. - Engrg. Prog. Vol. 57, Nov. 1961, pp. 60-5.
- 705 Glassford, W.
Critical path scheduling.
Plant Admin. & Engrg. Vol. 21, No. 10,
Oct. 1961, pp. 59-62.
- 706 Gloskey, C. R.
Research on a research department: an analysis of
economic decisions on projects.
IRE - Trans. Eng. Mgmt. Vol. EM-7, No. 4,
Dec. 1960, pp. 166-72.
- 707 Gray, W. A., Kidd, E. M.
Critical path scheduling with resource leveling
on the IBM 7090.
Union Carbide Nuclear Co., Rep. K-1499,
Mar. 1962, 69 p.
- 708 Haine, R. W., Lob, W.
The application of closed-loop techniques to
engineering project planning.
IRE-Trans. Engrg. Mgmt. Vol. EM-7, No. 3,
Sept. 1960, pp. 96-103.
- 709 Hamilton, H. R.
Can we predict the state of the art?
Battelle Techn. Rev. Vol. 9, No. 8,
Aug. 1960, pp. 3-6.
- 710 Hammen, T. F.
Planning in today's management (Digest of 30th
IAS ann. panel on engineering management)
Aerospace Engr. Vol. 21, No. 4,
April 1962, pp. 56-7, 62.
- 711 Hillesley, R. H. Harbury, A. L.
Simple estimates for complex (R & D) work load.
Harv. Bus. Rev. Vol. 38, No. 1,
Jan. 1960, pp. 87-96.
- 712 Horowitz, I.
Effects of changes in the corporate tax rate
on the allocation of research & development funds.
Journ. of Indust. Engrg. Vol. 13, No. 4,
July - Aug. 1962, pp. 232-6.

- 713 Horowitz, I.
Estimating changes in the research budget.
Jour. of Indust. Engrg. Vol. 12, No. 2,
Mar.-April 1961, pp. 114-8.
- 714 Horowitz, I.
Regression models for company expenditures on &
returns from research & development.
IRE - Trans. on Engrg. Mgmt. Vol. EM-7, No. 1,
Mar. 1960, pp. 8-13.
- 715 Imbrie, W.
Practical application of operations research
in multiple level management.
SAE - Paper 286 B, Jan. 1961, 13 pp.
- 716 James, G. W.
The industry of discovery needs a science of the
future (long-range R & D planning needs better
forecasting of future economic environment).
Battelle Tech. Rev. Vol. 10, No. 10,
Oct. 1961, pp. 5-10.
- 717 Karger, D. W.
Are you organized for new products. (Basic steps
in establishing product planning program).
Machinery (N.Y.) Vol. 67, No. 7, Mar. 1961, pp. 89-97.
- 718 Karger, D. W.
The industrial engineer's role in new product
development.
IRE - Trans. Engrg. Mgmt. Vol. EM-8, No. 3,
Sept. 1961, pp. 155-7.
- 719 Karger, D. W., Murdick, R. G.
Engineering on research (comparative emphasis
in over-all planning).
Mach. Des. Vol. 33,
Mar. 16, 1961, pp. 130-4.
- 720 Kast, F., Rosenzweig, J.
Minimizing the planning gap.
Adv. Mgmt. Vol. 25, No. 9,
Oct. 1960, pp. 20-3.
- 721 Kelley, J. E., Walker, M. R.
Critical-path planning & scheduling.
Proc. Eastern Joint Computer Conf. No. 16,
Dec. 1959, pp. 160-73.
(Library No. 510.78; EA77; 1959)

- 722 Kelley, J. E., Walker, M. R.
Critical-path planning & scheduling; an introduction.
Mauchly Assoc., Ambler, Pa. 1959. 1 Vol.
- 723 Kipping, N.
How to decide the right scale research.
Engrg. Vol. 194, July 27, 1962, p. 103.
- 724 Klein, H. E.
Stretching the R & D budget.
Dun's Review. Vol. 80, No. 6, Dec. 1962,
pp. 36-8, 67.
- 725 Kornfeld, J. P.
Cost-effectiveness as a method of evaluating
design changes.
IRE - Trans. on Engrg. Mgmt. Vol. EM-9, No. 1,
Mar. 1962, pp. 15-22.
- 726 Kornreich, D. W.
Utilization of "normalized" data for defense
contracts.
IRE - Trans. on Engrg. Mgmt. Vol. EM-9, No. 1,
Mar. 1962, pp. 11-14.
- 727 Kranser, L.
Long-range manufacturing planning: crystal
ball or computer
Tool Engr. Vol. 44, No. 7, June 1960, pp. 73-7.
- 728 Lambert, V. L., Sackett, H. F.
Research & development cost estimation.
IRE - Trans. on Engrg. Mgmt. Vol. EM-6, No. 1,
Mar. 1959, pp. 8-12.
- 729 Levitt, T.
Support your product R & D with strong marketing R & D.
Bus. Mgmt. Vol. 22, No. 1, April 1962, pp. 78-9.
- 730 Loeber, N. C.
PERT for small projects.
Mach. Des. Vol. 34, No. 25, Oct. 25, 1962,
pp. 134-9.
- 731 Lunkenheimer, E. L.
Use critical path method to plan complex projects.
Power Eng. Vol. 66, No. 9, Sept. 1962, pp. 37-40.
- 732 Lynch, C. J.
Plan projects scientifically with critical-path
scheduling.
Prod. Engrg. Vol. 32, No. 37, Sept. 18, 1961,
pp. 92-6.

- 733 McDowell, I.
Economical planning period for engineering works.
Oper. Res. Vol. 8, No. 4, July-Aug. 1960,
pp. 533-42.
- 734 McFadden, J. A.
New concepts of information for management
decisions - Research and development.
NAA Bull. Vol. 40, Aug. 1959, Sec. 3,
pp. 19-26.
- 735 McManus, G. J.
To plan your company's future, live 20 years
in 20 minutes; operational gaining or systems
simulation.
Iron Age. Vol. 184, Dec. 3, 1959, pp. 74-5.
- 736 McNaughton, R.
Scheduling with deadlines and loss functions.
Mgmt. Sci. Vol. 6, No. 1, Oct. 1959, pp. 1-12.
- 737 Malcolm, D. G., Rosebloom, J. H., Clark, C. E.
Fazar, W., Applicatoin of a technique for R & D
program evaluation.
Operations Res. Vol. 7, No. 5, Sept. 1959.
pp. 646-69
Discussion, Freeman, R. Vol. 8, No. 2,
Mar. 1960, p. 281.
- 738 Management check on R & D program evaluation
review technique.
Tool & Mfg. Engr. Vol. 48, No. 6,
June 1962- pp. 75-8.
- 739 Management of new product development: Panel
disucssion.
Chem Eng. Prog. Vol. 55, No. 11,
Nov. 1959, pp. 184-5.
- 740 Mandell, M.
Pros & Cons of government-sponsored research.
Mgmt. Rev. Vol. 51, No. 1,
Jan. 1962, pp. 64-7.
- 741 Martino, R. L.
How "critical path" scheduling works.
Canadian Chem. Proc. Vol. 44, No. 2,
Feb. 1960, pp. 38-40.
- 742 Martino, R. L.
New way to analyze & plan operations and projects.
will save you time & money (Critical-Path-Method).
Oil/Gas World. Sept. 1959, pp. 38-46.

- 743 Martino, R. L.
What's the shortest path in project planning
Executive. Vol. 2, No. 8, Aug. 1960, pp. 28-30.
- 744 Marvin, P.
Organizing for profit; Project priority based on
profit potential.
Mach. Des. Vol. 34, No. 25, Oct. 25, 1962,
pp. 130-3.
- 745 Marvin, P.
Speeding up product development.
Mach. Des. Vol. 34, No. 2, Jan. 18, 1962,
pp. 138-40.
- 746 Mattozzi, M., Lipinski, F.
Dynamic scheduling for project control.
Oil/Gas Jour. Vol. 60, August 20, 1962,
pp. 96-9.
- 747 Matye, T. T., Rich, G. K.
PERT/PEP planning & programming on the EAM.
(at Hughes Aircraft)
J. Machine Acct. Vol. 12, No. 7, July 1961,
pp. 6, 9-11, 13.
- 748 Mauchley, J. W.
Critical path scheduling
Chem. Eng. Vol. 69, April 16, 1962.
pp. 139-54.
- 749 Mesthene, E. G., MacClintock, S.
The nature of research goals: some necessary
definitions.
Rand No. RM-2858-PR, Jan. 1962, 25 p.
(Library Acc. No. 17, 198) AD272828
- 750 Miller, E.
Long range planning: overview
Adv. Mgmt. Vol. 25, No. 11,
Nov. 1960, pp. 8-11.
- 751 Miller, R. W.
How to plan & control with PERT.
Harv. Bus. Rev. Vol. 40, No. 2,
Mar.-April 1962, pp. 93-104.
- 752 Mottley, C. M.
Managing innovation for growth.
Stanford Res. Inst. Jour. Vol. 5,
2nd Quarter, 1961, pp. 58-66.

- 753 Mottley, C. M., Newton, R. D.
Selection of projects for industrial research.
Oper. Res. Vol. 7, No. 6, Nov. 1959, pp 740-51.
Discussion, Horowitz, I., Vol. 8, No. 4,
July 1960, pp. 573-5.
- 754 Murdick, R. G.
Establishing technical objectives in product
development.
Mach. Des. Vol. 34, No. 8,
Mar. 29, 1962, pp. 98-103.
- 755 Murdick, R. G.
Three phases of managerial planning.
Mach. Des. Vol. 33,
April 13, 1961, pp. 136-40.
- 756 Nelson, R. R.
Uncertainty, learning, and the economics of
parallel research and development efforts.
Rev. of Econom. & Statistics. Vol. 43, No. 11,
Nov. 1961, pp. 351-64.
- 757 Nevill, G., Falconer, D.
Critical path diagramming (for planning &
scheduling small projects).
Int'l Sci. & Tech. Vol. 1, No. 10,
Oct. 1962, pp. 43-9.
- 758 New technique boasts better resource utilization.
(RAMPS - Resources allocation & multiproject
scheduling system).
Steel. Vol. 151, Aug. 6, 1962, p. 29.
- 759 Norden, P. V.
On the anatomy of development projects
IRE - Trans. Engrg. Mgmt. Vol. EM-7 No. 1,
Mar. 1960, pp. 34-42.
- 760 Novick, D.
New tools for planners and programmers.
Rand Corp., Santa Monica, California, 1961, 21 pp.
- 761 Ohlinger, L. A.
For the Air Force - a new scientific management
technique (Principles of operations research
applied to long-range programming of weapons R&D)
Aerospace Engrg. Vol. 20, No. 11.
Nov. 1961, pp. 10-1, 63-8.
- 762 Ohlinger, L. A.
Weapon system planning & control (WSPACS).
Aerospace Mgmt. Vol. 4, No. 8, Aug. 1961, pp. 41-5.

- 763 Olsen, A. G.
How to plan research for profit.
Food Engr. Vol. 31, No. 11,
Nov. 1959, pp. 39-41; Dec. 1959, pp. 99-100.
- 764 O'Meara, J. T.
Selecting profitable products.
Harv. Bus. Rev. Vol. 39, No. 1,
Jan. -Feb. 1961, pp. 83-9.
- 765 O'Toole, T.
Basic research; industry's 400-million dollar
gamble.
Mgmt. Rev. Vol. 51, No. 2, Feb. 1962, pp. 21-3.
- 766 Packard, K. S.
Probabilistic forecasting of manpower requirements.
IRE - Trans. on Engrg. Mgmt. Vol. EM-9, No. 3,
Sept. 1962, pp. 136-7.
- 767 Pappas, G. F., MacLaren, D. D.
An approach to research planning.
Chem. Engrging. Prog. Vol. 57,
May 1961, pp. 65-9.
- 768 Pearlman, J.
PERT - an empirical approach to resources planning.
IRE - Int'l Conv. Rec. Vol. 9, Pt. 10,
1961, pp. 12-21.
abst. in IRE - Proc. Vol. 49, No. 3, Mar. 1961, pp. 656-7.
- 769 Pearlman, J.
Engineering program planning and control through
the use of PERT.
IRE - Trans. on Engrg. Mgmt. Vol. EM-7, No. 4,
Dec. 1960, pp. 125-34.
- 770 Planning in today's management panel discussion.
Aerospace Engr. Vol. 21, No. 4, April 1962, pp. 56-7.
- 771 Pollock, J. C.
Planning, scheduling & expediting engineering
projects with the aid of electronic computers.
Argonne Nat'l. Lab. Rep. No. ANL-6557,
May 1962, 119 pp.
(Library ACC. No. 23,480)
- 772 Problems in research tempo.
Res./Dev. Vol. 12, p. 102, Oct.; p. 32, Nov. 1961;
Vol. 13, p. 21, Jan.; p. 91, May 1962.
- 773 A program definition network (chart, with glossary, on
latest tool in management control technique).
Armed Forces Mgmt. Vol. 8, No. 10, July 1962, pp. 30-2.

- 774 Project planning programs for use by small business firms (PERT).
Comp. & Automat. Vol. 10, No. 11,
Nov. 1961, p. 35.
- 775 Quinn, J. B.
The challenge of effective planning for research.
Chem. & Engrg. News. Vol. 39, No. 2,
Jan. 9, 1961, pp. 78-84.
- 776 Quinn, J. B.
Long-range planning of industrial research.
Harv. Bus. Rev. Vol. 39, No. 4,
July-Aug. 1961, pp. 88-102.
Excerpts - Mgmt. Rev. Vol. 50, No. 10,
Oct. 1961, pp. 60-2.
- 777 Quinn, J. B.
Yardsticks for industrial research. The evaluation
of research & development output.
Ronald Press Co., N. Y. 1959. 224 pp.
- 778 Rabe, W. F.
Organizing for R & D; lesson from the past.
Personnel. Vol. 38, No. 9, Sept. 1961, pp. 61-8.
- 779 Rapoport, L. A., Drews, W. P.
Mathematical approach to long-range planning
(application of linear programming to operations
scheduling).
Harv. Bus. Rev. Vol. 40, No. 3,
May-June 1962, pp. 75-87.
- 780 Rassweiler, C. F.
Establishing corporate objectives for product
programs.
Planning ahead for profits. AMA Mgmt. Rep. No. 3.
Amer. Mgmt. Assoc., N. Y. 1958, pp. 61-9.
(Library No. 658.1; AM 35)
- 781 Rauner, R. M., Steger, W. A.
Simulation and long-range planning for resource
allocation.
Rand Corp., Santa Monica, Calif. Rep. No. P-2223-1,
Feb. 1961, 32 pp.
(Library Acc. No. 14,763)
- 782 Research: efficiency before expansion.
Engineering. Vol. 192, Dec. 29, 1961, pp. 854-5.

- 783 Richardson, D. K.
The influence of development objectives upon
production costs.
ASME - 1961 Sum. Ann. Meeting - Paper 61-SA-64.
- 784 Rodert, L. A.
Relating industrial research to company goals.
Aerospace Engrg. Vol. 20, No. 10, Oct. 1961, pp. 26-7.
- 785 Roehl, O. C.
The investment analyst's evaluation of industrial
research capabilities.
Research Mgmt. Vol. 3, No. 3, Autumn 1960,
pp. 127-45.
- 786 Ryland, B. G.
Product planning through R & D.
Microwave Jour. Vol. 3, No. 5,
May 1960, pp. 95-6.
- 787 Salveson, M. E.
A computational technique for the scheduling
problem.
Jour. of Indust. Engrg. Vol. 13, No. 1,
Jan. -Feb. 1962, pp. 30-41.
- 788 Salveson, M. E.
Long-range planning in technical industries.
Jour. Indus. Engrg. Vol. 10, No. 5,
Sept. -Oct. 1959, pp. 339-46.
- 789 Sayer, J. S., Kelley, J. E., Walker, M. R.
Critical path scheduling.
Factory. Vol. 118, No. 7, July 1960, pp. 74-7.
- 790 Scott, W.
New goals for product planning.
Steel. Vol. 151, No. 11.
Sept. 10, 1962, pp. 73-6.
- 791 Sidebottom, J. H.
BMEWS - success story in management.
Aerospace Mgmt. Vol. 5, No. 11,
Nov. 1962, pp. 16-22.
- 792 Slowter, E. E.
Research researched (continuing evaluation of
research programs).
In Proceedings of Propellant thermodynamics &
Handling Conf., Ohio State Univ.,
Engrg. Exper. Station, June 1960. pp. 389-96.

- 793 Stegner, C. B.
Scheduling projects by critical path.
Electronics. Vol. 35, Mar. 2, 1962, pp. 56-7.
- 794 Steinfeld, R. C.
Critical path saves time & money.
Chem. Engrg. Vol. 67, No. 24,
Nov. 28, 1960, pp. 148, 150-2.
- 795 Stolze, W. J.
Decision-making as it affects long range planning.
IRE - Trans. on Engrg. Mgmt. Vol. EM-9, No. 1,
Mar. 1962, pp. 33-6.
- 796 (Strategy of) industrial research & development.
Nature. Vol. 188, Dec. 24, 1960,
pp. 1055-8.
- 797 Swager, W. L.
Planned research & development.
Systems & Proc. Mag. Vol. 10, No. 5,
May 1959, pp. 2-7.
- 798 Taylor, R. B.
Hoffman gets HEPP (Hoffman Evaluation Program
Procedure)
Aerospace Mgmt. Vol. 5, No. 7, July 1962, pp. 31-3.
- 799 Technertia: stop R/D inertia.
Steel. Vol. 150, Jan. 1, 1962, pp. 133-8.
- 800 Thompson, R. E.
PERT - Tool for R & D project decision-making.
IRE - Trans. on Engrg. Mgmt. Vol. EM-9, No. 3,
Sept. 1962, pp. 116-21.
- 801 Thompson, S.
How top companies plan success.
Nation's Business. Vol. 50, No. 5,
May 1962, pp. 84-90.
- 802 Thompson, S., Haas, G. H.
How companies plan.
Amer. Mgmt. Assoc., N. Y. 1962. 215 pp.
- 803 Tiny computer helps PERT job. (called PERT-O-GRAPH)
Bus. Week. Sept. 8, 1962, p. 116.
- 804 Tomb, J. O.
A new way to manage-integrated planning and control. (IPC)
Calif. Mgmt. Rev. Vol. 5, No. 1, Fall 1962, pp. 57-62.

- 805 The tribulations of Hawkeye - a study in planning.
Stanford Research Inst. Jour. Vol. 5,
4th Quarter, 1961, pp. 134-68.
- 806 Unified operations management.
Business Automat. Vol. 7, No. 1,
Jan. 1962, pp. 26-31.
- 807 Vexing environment for technical management.
Ind. Res. Vol. 4, No. 1, Jan. 1962, pp. 22-5.
- 808 Villers, R.
Scheduling of engineering research.
J. Indust. Engrg. Vol. 10, No. 6,
Nov. -Dec. 1959, pp. 419-22.
- 809 Waring, M. E., Demarest, P. W.
Follow-through; necessity in planning.
NAA Bull. Vol. 43, No. 8, Aug. 1962,
pp. 83-4.
- 810 Weller, R. Finkelstein, N. A.
Research administration in an explosive technology.
IRE - 1961 Int. Conv. Rec. Vol. 9, Pt. 10, pp 39-43.
- 811 White, D. R. J., Hickey, T. J.
A model for planning study-type contracts.
IRE - Trans. on Engrg. Mgmt. Vol. EM-7, No. 3,
Sept. 1960, pp. 117-21.
- 812 Williams, V. Z.
What the R/D budget covers.
Res./Dev. Vol. 11, No. 11, Nov. 1960,
pp. 14+.
- 813 Williamson, M. A.
Art of follow-up.
Res./Dev. Vol. 12, No. 10,
Oct. 1962, pp. 47-9.
- 814 Williamson, M. A.
Fulfilling Management's concept of R & D.
Res. & Dev. Vol. 13; pp. 30-1, June;
pp. 6-7, July ; pp. 8-9, Aug.; pp. 35-7, Sept. 1962.
- 815 Williamson, M. A.
High hopes and hard facts in research expectations.
Res. & Dev. Vol. 13; pp. 61-5, April; pp. 17-20,
May 1962.

- 816 Williamson, M. A.
The wheat and chaff of new product ideas.
Res. & Dev. Vol. 13; pp. 59-63, Jan.;
pp. 67-80, Feb.; pp. 18-22, Mar. 1962.
- 817 Wittner, H. M.
R & D project managers; what and who are they
Armed Forces Mgmt. Vol. 8, No. 6,
Mar. 1962, pp. 39-42.
- 818 Wood, K. R., Zagorski, H. J.
How to schedule by computer - use MAPS.
(Multivariate Analysis and Prediction of Schedules)
Aerospace Mgmt. Vol. 5, No. 2, Feb. 1962, pp. 36-7.
- 819 Wright, J. O.
Relationship of product planning to engineering
(at Ford Motor Co.)
Automotive Ind. Vol. 125,
Dec. 15, 1961, p. 92.
- 820 Yale, J. P.
Elements in long-range planning.
Adv. Mgmt. Vol. 26, No. 5,
May 1961, pp. 16-9.
- 821 Young, L. H.
Now industry schedules by computer; PERT or
Critical Path Method.
Control Engrg. Vol. 9, No. 1, Jan. 1962, pp. 16-8.

Section VII

UTILIZATION OF PROFESSIONAL MANPOWER

- 822 Better utilization of technical manpower - a
panel discussion.
Tappi. Vol. 44, Sept. 1961, pp. 12A-13A.
- 823 Blood, J. W. ed.
Optimum use of engineering talent: meeting the
need for technical personnel.
Amer. Manag. Assoc. Rep. No. 58, 1961, 416 pp.
(Library No. 620.69; B62)
- 824 Cestoni, D. J.
Making the most of engineering talent.
Management Review. Vol. 51,
July 1962, pp. 50-2.

- 825 Do professional employees require special handling
Iron Age. Vol. 185, Mar. 17, 1960, pp. 61-2.
- 826 Fitting non-conformists into the team (Highlights
of Arden House Conference).
Chem. W. Vol. 84, June 6, 1959, pp. 35-6.
- 827 Golovin, H. E.
Management and the creative person in science.
Personnel Admin. Vol. 24, No. 11,
Nov. 1961, pp. 4-10.
- 828 Hahn, W. A.
Applied business research (relationship
between managers and management scientists).
IRE - Trans. on Engrg. Mgmt. Vol. EM-9, No. 1,
Mar. 1962, pp. 3-10.
- 829 Hallman, L. B.
The technical management of multi-disciplinary
aerospace systems.
National Aerospace Electronics Conv. Proc.,
May 1962, pp. 602-6.
- 830 Hanford, W. E.
People versus machines.
Chem. & Ind. Nov. 4, 1961,
pp. 1777-8.
- 831 Harvie, T. A.
Engineers and management.
Canadian Aeronaut. Jour. Vol. 6, No. 8,
Oct. 1960, pp. 315-9.
- 832 Hertz, D. B.
The creative mentality in industrial research.
In Human Relations in Industrial Research Management
Columb. Univ. Press, N.Y. 1957, pp. 45-59.
(Library No. 607; C72; 1955-C)
- 833 Huntley, H. R.
Utilization of engineering talent.
Elec. Engrg. Vol. 78, No. 1,
Jan. 1959, pp. 42-7.
- 834 Jones, S. L., Arnold, J. E.
The creative individual in industrial research.
IRE - Trans. on Engrg. Mgmt. Vol. EM-9, No. 2,
June 1962, pp. 51-5

- 835 Kyte, A. L.
Motivating and appraising scientific personnel.
(Conference Board Survey)
Mgmt. Record. Vol. 23, No. 6,
June 1961, pp. 2-10.
- 836 McGee, A. A., Markarian, M. D.
Optimum allocation of research/engineering
manpower within a multi-project organizational
structure.
IRE - Trans. on Engrg. Mgmt. Vol. EM-9, No. 3,
Sept. 1962, pp. 104-8.
- 837 Marcson, S.
Role adaptation of scientists in industrial
research. (Integrating scientists into research
lab of large electronics company)
IRE - Trans. on Engrg. Mgmt. Vol. EM-7, No. 4,
Dec. 1960, pp. 159-66.
- 838 Marcson, S.
The scientist in American industry - some organizational
determinants in manpower utilization.
Princeton Univ. Res. Rep. No. 99,
Harper & Bros., N. Y. 1960. 158 pp.
- 839 Mautner, L., Fletcher, J. H., Tait, R., Moore, J. R.,
Metzger, E. F., Beach, B. B.
Engineering manpower utilization; an industry-
government panel discussion.
IRE - NEREM Record, Nov. 1960, pp. 128-9, 165.
(Library No. 621.38; N81; 1960)
- 840 Miles, S. B., Vail, T. E.
Thinking ahead (organizational relationships
between professionals & managers - proposal
for dual-management).
Harv. Bus. Rev. Vol. 38, No. 1, Jan. -Feb. 1960,
pp. 27, 30, 149-50, 152-4.
abst. - Mgmt. Rev. Vol. 49, No. 3, Mar. 1960,
pp. 37-9.
- 841 Moore, G. E.
1200 case studies of engineering motivation.
(Westinghouse "Personnel Follow" program to
promote more effective utilization of
engineering personnel.)
IRE - Trans. on Educ. Vol. E-2, No. 3,
June 1959, pp. 82-4.
- 842 Munton, C. B.
Parallel incentive systems for supervisory and
non-supervisory professional personnel.
Tappi. Vol. 44, Sept. 1961, pp. 28A-29A.

- 843 New way to attract brain-power management
of high-talent employees.
Nations Bus. Vol. 47, Oct. 1959, pp. 82-4.
844. Noltingk, B. E.
The human element in research management.
Elsevier Pub., London. 1959. 91 pp.
(Library No. 507.2; N725)
- 845 Parrish, R. L.
Utilization and training of scientists, engineers
and technicians in electronics industry.
No. Car. Conf. on Utilization of Engineers
and Scientists. North Carolina State College
Dept. Engrg. Research Bull. No. 75, Sept. 1959, 38-40.
- 846 Pelz, D. C.
Interaction and attitudes between scientists
and the auxiliary staff.
Admin. Sci. Quart. Vol. 4: pp. 321-36, Dec. 1959;
pp. 410-25, Mar. 1960.
- 847 Ralston, M.
Want better engineers? Isolate the scientists:
Lockheed Aircraft Corp.
Product Engrg. Vol. 33, Sept. 3, 1962, pp. 82-3.
- 848 Reconciling professional and personal goals and
needs with company goals and needs.
Report of Oval Room Work Group.
Columbia Univ. Aug. 1960.
abst. - Res./Dev. Vol. 11: pp. 7-16, Oct.;
pp. 81-94, Nov. 1960.
- 849 Reynolds, C. W.
Utilization of technically trained manpower.
No. Car. Conf. on Utilization of Engineers and
Scientists. North Carolina State College
Dept. Engrg. Research Bull. No. 75, Sept. 1959, pp. 21-5.
- 850 Rice, H. W.
Realistic research administration.
Ind. Res. Vol. 3, No. 3, June-July 1961, pp. 62-7.
- 851 Robbins, P. H.
Utilization - necessity for employer and professional
employee.
Proc. Ohio State Conf. on Progressive Engrg.
Personnel Policies, Ohio State Univ. Engrg.
Exper. Station, Dec. 1951, pp. 25-30.
- 852 Rosow, J. M.
Growing role of professional and scientific
personnel.
Mgmt. Record. Vol. 24, No. 2, Feb. 1962, pp. 19-23.

- 853 Schmidt, P. S.
Management control of professional operations -
actuality or illusion
IRE - Trans. Engrg. Mgmt. Vol. EM-6, No. 3,
Sept. 1959, pp. 81-6
- 854 Scientists air their griefs: they feel that
managers misuse their talents.
Chem. & Engrg. News Vol. 37, Nov. 2, 1959, pp. 34-5.
- 855 Sheehan, R. M.
Developing professional personnel.
Adv. Mgmt. Vol. 24, May 1959, pp. 19-22.
- 856 Simon, L. E.
The spectrum theory of organizing research and
engineering.
Ind. Res. Vol. 3, No. 5, Nov. 1961, pp. 52-61.
- 857 Sisson, A. L.
Utilization trends for scientists and engineers -
Navy style.
Jour. of Ind. Engrg. Vol. 11, No. 5,
Sept. -Oct. 1960, pp. 398-9.
- 858 Sprague, P. A.
Man as a research tool.
Ind. Res. Vol. 4, No. 6, June 1962, pp. 52-6.
- 859 Stagg, G. W., et al
PERT schedules manpower.
Electrical World. Vol. 158, July 30, 1962, pp. 36-7.
- 860 Stoddard, E. L.
Keeping the engineer at work at what he does best.
Electron. Ind. Vol. 21, No. 5, May 1962, pp. 209-10.
- 861 Torpey, W. G.
Better R & D management through optimum deployment
of technical manpower.
Personnel Jour. Vol. 40, No. 3, July-Aug. 1961, pp. 109-113.
- 862 Torpey, W. G.
Rx: utilization of technical brainpower.
Mech. Engrg. Vol. 84, No. 4, April 1962, pp. 58-60.
- 863 Wagner, G. L. Redding, J. H., Brown, F. B.
Phasing and utilization of engineering personnel.
IRE - Trans. Engrg. Mgmt. Vol. EM-7, No. 2,
June 1960, pp. 45-53.
- 864 Whitney, J. F.
Manpower planning and control for engineering projects.
NAA Bull. Vol. 43, No. 10, Oct. 1961, pp. 75-9.

SECTION VIII

AUTHOR INDEX

Abhyankar, B	263
Acker, D. D.	1
Adams, E. L.	89
Allen, L. A.	90
Allison, D.	264
Alston, A. S.	91
Anderson, H. H.	21
Andrews, F. M.	382
Andrews, K. R.	92
Angell, C. E.	265
Anschen, M.	453
Ardleigh, J. D.	266
Argyris, C.	95; 96
Arnold, J. E.	834
Astrachan, H.	655
Athan, P.	2
Atwood, J. L.	97
Bahr, G. L.	521
Bailey, G. L.	267
Baker, B. N.	454
Baker, S. S.	22
Barish, N. N.	656
Barmby, J. G.	455; 456

Barrows, B. F.	268
Barthel, C. E.	269
Bass, B. M.	98
Beaubiem, W. H.	270
Beech, B. B.	839
Beer, S.	457
Begovich, N. A.	271
Beller, W.	458
Bellman, R.	459
Bellows, R.	99
Bennett, K. W.	657; 658
Bennion, E. G.	460
Bennis, W. G.	143
Benson, J. J.	100
Bentzen, E. C.	101
Berman, H.	659
Bialik, J. J.	461
Bicking, C. A.	272
Bidwell, A. C.	273; 276
Bienvenu, B. J.	102
Bierer, B. B.	660
Bigelow, C. G.	661
Bildson, R. A.	462
Binsel, P. W.	662
Birch, N.	274
Black, J. M.	275

Blake, B. R.	276
Blake, R. R.	273
Blansfield, M. G.	103; 104
Blood, J. W.	823
Bloom, W.	463
Boback, E. T.	464
Boehm, G. A. W.	465
Bonchonsky, J.	466
Boot, C. G.	3
Borklund, B.	467
Bott, R. P.	105
Boulanger, D. G.	277; 468
Bovaird, R. L.	469
Bowles, W. J.	106
Bradley, J. A.	23
Bradshaw, F. F.	107
Bragg, R. W.	470
Bramley, D. H.	108
Branch, M. C.	663
Brandon, D. H.	278
Bright, J. R.	664
Brooke, E. R.	665
Brophy, A. L.	32
Brown, A. E.	24; 25
Brown, D. A.	26
Brown, F. B.	863

Brown, H. C.	666
Brown, R. C.	667
Brown, R. E.	109; 110
Brown, W. S.	4
Bunn, H. S.	279
Burgess, R. E.	668
Burnett, Y.	280
Burns, J. E.	111
Burns, T.	281; 282
Burriss, S. W.	471
Busch, G. A.	669
Bush, C. M.	431
Bush, V.	112
Butler, J. J.	113
Cabell, C. P.	472
Cairns, R. W.	670
Caldwell, J. W.	283
Caleo, R. L.	114; 473
Campbell, I.	115
Campbell, J. M.	284
Cantor, S. M.	285
Carlson, A. E.	474
Caroll, J. M.	475
Caskey, C. C.	116
Cassells, L.	671
Cestoni, D. J.	824

Chamberlain, C. J	286
Charnes, A.	5; 6; 476
Chernoff, H	477
Chesters, J. H.	287
Christensen, B. M.	672; 673
Christensen, C. R.	261
Christian, W.	117
Churchman, C. W.	478; 479
Clark, C. E.	480; 481; 737
Clarke, R. W.	482
Clay, H. H.	118; 119
Clifford, R.	120
Coe, R. S.	121
Cohen, K. J.	122
Collett, M. M.	123
Collins, J.	124
Colmen, K. S.	288
Conway, R. W.	484
Cooper, W. W.	5; 6; 476
Corson, J. J.	27
Cosinuke, W.	676
Craft, C. L.	125
Crane, H. R.	28
Cronstedt, V.	289
Culliton, J. W.	486
Curry, R. M.	7

Daffern, G. N.	126
Dalleck, W. C.	487
Daniel, D. R.	488
Dantzig, G. B.	8; 489
Davidson, H. O.	678
Davies, O. L.	679
Davis, K.	290; 680
Demarest, P. W.	809
Demian, J.	291
Deutsch & Shea, Inc.	292
DeWitt, R. L.	100
Dickey, E. R.	490
Diebold, J.	491
Dill, W. R.	127
Dogrusoz, H.	682
Dorfman, W.	684
Dressel, R. L.	685
Dressner, J.	293
Drews, W. P.	617; 779
Dreyfack, G. G.	31
Dreyfack, R.	493
Driessnack, H. H.	494
Dunlap, J. W.	294
Durfee, R. A.	32
Dwyer, E. D.	495

Eaton, W. W.	686
Eckman, D. P.	496
Edgerton, H. A.	348
Edwards, J. A.	295
Eisner, H.	688
Eitingen, J. E.	129
Elliot, J. M.	130
Elmaghraby, S. E.	9
Elwell, J. M.	497; 498
Emmerglick, L. J.	33
Ernst, M. L.	499
Exton, W.	131
Falconer, D.	757
Falk, R.	132
Famularo, J. J.	133
Farr, R. O.	616
Farrell, J. J.	273
Fazar, W.	500; 501; 502; 561; 689; 737
Fielden, J.	134
Finch, R. L.	521
Finkelstein, N. A.	810
Fisher, N.	135
Fitchthorn, W. H.	136
Flagle, C. D.	690
Fleming, C. L.	299
Fleming, Q. W.	503; 691

Fletcher, J. H.	839
Fogiel, M.	300
Fong, L. B. C.	692
Foreman	138
Forrester, J. W.	504
Fox, J. R.	561
Frambes, R. W.	301; 505
Francis, C.	649
Frank, G.	302
Freedman, P.	693
Freeman, R. J.	506; 694; 695
Fremed, R. F.	303
French, W. L.	210
Fried, G.	304
Frishberg, M. C.	696
Fry, B. L.	10; 507; 508
Fulkerson, D. R.	509; 697; 698
Fuller, D.	699
Gabriel, H. W.	139
Gaddis, P. O.	305; 306; 307; 510
Gallagher, J. D.	511
Gammon, H. M.	34; 35
Garbarino, H. L.	700
Gardiner, G.	140
Gardner, C. W.	36
Garg, A.	11

Gargiulo, G. R.	701
Gavin, J. M.	702
Geddes, P.	512; 513; 514; 515
Geisler, M. A.	141; 516
Gerber, T. L.	517
Gershinowitz, H.	37
Ghiselli, E. E.	308
Gillespie, J. R.	462
Gillen, R. L.	142
Gilroy, E. B.	309
Ginder, S. P.	703
Glaser, L.	704
Glass, S. J.	38
Glassford, W.	705
Gloskey, C. R.	706
Goetz, B. E.	143
Goldman, A. S.	469
Goldner, B. B.	39
Goldstein, A. S.	310
Gollomp, B. P.	311
Golovin, N. E.	827
Goode, H. H.	312; 518
Gordon, P. J.	144
Gordon, W. J. J	145
Grant, A. A.	146
Gray, W. A.	707

Green, E. I.	313
Greenleaf, R. K.	147
Grossman, H.	519
Grubbs, F. E.	520
Gruenfeld, L. W.	148
Gwyton, J. H.	314
Haddock, W. N.	521
Haefele, J. W.	40
Hahn, W. A.	828
Haine, R. W.	708
Hallman, L. B.	829
Hamilton, H. R.	709
Hamlin, F.	522
Hammen, T. F.	710
Handschumacher, A. G.	315
Handy, J. L.	149
Hanford, W. E.	316; 830
Hannoch, J.	701
Harbury, A. L.	711
Harding, H. F.	57
Harris, R. H.	41; 42
Hart, W.	150
Harvie, T. A.	831
Hass, G. H.	802
Hatry, H. P.	523
Hattery, L. H.	524

Hawkes, R.	525
Hawkins, G. A.	317
Hawthorne, R.	526
Healy, T. L.	527
Hearle, E. F. R.	528
Heembrock, M. R.	529
Hendershot, R. T.	254
Henderson, J. J.	151
Henning, K. K.	182
Herrick, J. S.	318
Hertz, D. B.	701; 832
Hewes, R. B.	319
Heyel, C.	152; 320
Heyne, J. B.	530
Hickey, A. E.	531
Hickey, T. J.	811
Hicks, J. A.	321
Hildebrandt, H. W.	153
Hillesley, R. H.	711
Hilton, T. L.	127
Hincks, E. B.	470
Hinrichs, J. R.	43
Hitchcock, L. B.	323
Hockman, J.	532
Hodgson, W.	649
Hoelscher, L. B.	154

Hoffman, A.	533
Hollis, C. R.	534
Hoos, I. R.	535
Hopkins, R. C.	536
Horowitz, I.	712; 713; 714
Horne, R. C.	651
Hosier, W. A.	537
Hoslett, S.	155
Howard, G. W.	325
Hubban, H.	142
Hughes, J. E.	326
Huish, H. A.	538
Hulley, O. S.	327
Hulme, R. D.	157
Huntley, H. R.	328; 833
Hurt, R.	329; 330
Imbrie, W.	715
Irish, S. R.	333
Irvin, C. W.	691; 503
Jackson, H. J.	45
Jacobs, D. H.	334
James, G. W.	716
Jarett, I. M.	540
Jaunot, F. E.	314
Jenks, J. M.	158
Jermy, K. E.	335

Jerome, W. T.	541
Jodker, J.	542
Johnson, T. H.	159
Joiner, F.	160
Jones, R. W.	336
Jones, S. L.	834
Kahane, B. B.	161
Kaplan, N.	46; 337; 338
Karger, D. W.	339; 340; 717; 718; 719
Karp, H. R.	543
Kast, F.	544; 720
Katz, A.	341
Kavanagh, T. F.	545
Keating, P. J.	342
Keene, J.	47
Kelley, J. E.	546; 547; 548; 721; 722; 789
Kellner, A. D.	162
Kenney, H. D.	549
Kepner, C. H.	163
Kidd, E. M.	707
Kilgore, L. A.	48
King, D.	248
King, W. O.	343
Kipp, E. M.	344
Kipping, N.	723

Kirkpatrick, F. H.	164
Klass, P. J.	550; 551
Klein, H. E.	724
Koch, E. G.	552
Koff, R. M.	345
Korman, A. K.	165
Kornfeld, J. P.	725
Kornreich, D. W.	726
Kossack, C. F.	346
Kraig, H. J.	347
Kranser, L.	727
Krugman, H. E.	166; 348
Kukic, Z.	167
Kurk, M. I.	554
Kurshan, J.	349
Kushnerick, J. P.	168; 553
Kyte, A. L.	835
Labiner, K. H.	555
Lach, E. L.	556
Laitala, E.	350
Lambert, V. L.	728
Larsen, F. J.	351
Larson, R. L.	352
Lasser, D.	557
Layton, A. B.	353

Learn, R.	592
Ledeen, E. A.	354
Lester, D. R.	355
Leutert, W. W.	558
Levinson, H.	169
Levitt, T.	729
Lewis, J.	559
Lewis, R. B.	560
Lewis, R. E.	356
Lickert, R.	170; 357
Lipinski, M.	746
Litterer, J. A.	171
Livingston, C. W.	72
Liningston, J. S.	561; 597
Lob, W.	708
Loeber, N. C.	730
Logan, A. L.	49
Longstreet, V. M.	172
Lunkenheimer, E. L.	731
Lynch, C. J.	732
MacClintock, S.	749
MacLaren, D. D.	767
MacNew, T.	567
Madansky, A.	8; 12; 13
Mahoney, T. A.	177
Malcolm, D. G.	568; 569; 570; 571; 572; 573; 574; 737

Mandell, M. M.	362; 740
Manne, A. S.	575
Mantel, S.	576
Marcson, S.	363; 837; 838
Markarian, M. D.	836
Marschak, T. A.	577
Martin, N. H.	179
Martin, N. M.	578
Marting, E.	180; 365
Martino, R. L.	741; 742; 743
Marvin, P.	366; 367; 368; 744; 745
Massey, R. J.	181
Masterson, T. R.	182
Mattessich, R.	579
Mattozzi, M. L.	746
Matye, T. T.	747
Mauchley, J. W.	748
Mautner, L.	839
Maxwell, W. L.	484
Mayfield, H.	183
Maynard, H. B.	184
Maynes, W.	580
McCord, M.	2
McCrory, R. J.	50; 51
McDowell, I.	733
McEachron, W. D.	662

McFadden, J. A.	734
McGarry, J. F.	358
McGee, A. A.	836
McGehee, W.	173
McGivern, J. M.	7
McGovney, W. C.	174
McGrath, J. E.	563
McGuire, W. J.	564
McLarney, W. J.	175
McLean, J. D.	565; 566
McManus, G. J.	735
McMurray, R. N.	176
McNaughton, R.	736
McNulty, J. E.	359
Mears, B. B.	52
Mears, R. B.	369
Mesarovic, M. D.	581; 582
Messick, W. L.	53
Mesthene, E. G.	749
Metzger, E. F.	839
Micheal, S. R.	370
Middendorf, W. H.	54
Miles, H. W.	371
Miles, S. B.	840
Miller, D. W.	583
Miller, E.	750

Miller, H. M.	372
Miller, N.	584
Miller, N. C.	585
Miller, R. W.	586; 751
Milliman, P.	11
Miner, J. B.	185
Mohrman, H. W.	55
Moore, F.	587
Moore, G. E.	841
Moore, J. R.	839
Morris, W. T.	14
Morrison, J. H.	186
Morse, G. E.	187
Moses, L. E.	477
Mottley, C. M.	752; 753
Mouton, J. S.	276
Munton, C. B.	842
Murdick, R. G.	188; 189; 373; 374; 375; 719; 754; 755
Nakayama, Y.	588; 589
Neal, H. T.	591
Negus, A.	630
Niemann, F. L.	377
Neimann, R.	592
Nelson, E. C.	593
Nelson, G. H.	376
Nelson, R. R.	756

Nelson, T. H.	190
Neuschel, R. F.	594
Nevill, G.	757
Newell, A.	411
Noltingk, B. E.	844
Norden, P. V.	759
Nordlie, P. G.	563
Norton, B. A.	383
Novick, D.	760
O'Donovan, T. R.	192
Ohlinger, L. A.	761; 762
Ohmann,	138
Olm, K. W.	193
Olsen, A. G.	763
Olsen, L. O.	118; 119
O'Meara, J. T.	764
Optner, S. L.	595
Oriel, A. E.	56
O'Shaughnessy, M. T.	379
O'Toole, T.	765
Owen, R. S.	194
Owen, W. V.	596
Owens, W. R.	15
Packard, K. S.	766
Pappas, G. F.	767
Parkinson, L. R.	380

Parnes, S. J.	57
Parrish, R. L.	845
Paskman, M.	597
Paules, C. E.	381
Pearlman, J.	768; 769
Pearson, D. S.	58
Peart, R. M.	598
Peck, M. J.	599
Pelz, D. C.	382; 846
Pepinsky, H. B.	383
Pepinsky, P. N.	383
Petersen, D. N.	604
Peterson, E. L.	605
Phelps, E. D.	384
Planty, E.	207
Pockrass, J.	195
Pocock, J. W.	606
Pollack, M.	607
Pollock, J. C.	771
Popovich, S.	16
Porter, E. H.	608
Postley, J. A.	610; 611
Powell, D. C.	385
Purdy, D. L.	59
Pyburn, J. R.	197
Quinn, J. B.	387; 775; 776; 777

Rabe, W. F.	778
Radell, N. J.	613
Radner, R.	388
Rafferty, J. A.	614
Ralston, M.	847
Ranck, N. H.	616
Randall, C. B.	198
Randall, R. L.	671
Randle, C. W.	389; 390
Rapoport, L. A.	617; 779
Rassweiler, C. F.	780
Rathe, A. W.	618
Raudsepp, E.	60; 61; 62; 63; 64; 65; 66; 67; 68; 69; 70; 391; 392; 393; 394
Rauner, R. M.	781
Ream, N. J.	395
Redding, J. H.	863
Redfield, C. E.	199
Reich, I.	71
Reid, P. C.	200
Renck, R.	72
Rex, F. J.	397
Reynolds, C. W.	849
Rhenman, E.	122
Rice, H. W.	398; 850
Rich, G. K.	747

Richardson, D. K.	783
Rietman, W. R.	127
Ritchey, J. A.	201
Robbins, P. H.	851
Roberts, E. B.	399
Robertson, S. A.	400
Rodert, L. A.	401; 402; 784
Roehl, O. C.	785
Roethlisberger, F. J.	261
Ronayne, M. F.	619
Rood, A.	202
Roscoe, T. A.	203
Rosebloom, J. H.	737
Rosenzweig, J.	544; 620; 720
Rosow, J. M.	852
Ross, R. J.	621
Rowe, A. J.	574; 622; 623
Rowland, V. K.	205
Rudkin, J. B.	624
Rule, E. A.	206
Ryder, F. L.	73
Ryerson, W. N.	207
Ryland, B. G.	786
Sackett, H. F.	728
Salveson, M. E.	787; 788

Savage, C. T.	403
Savage, P. P.	625
Sayer, J. S.	404; 789
Schaeffer, K. H.	626
Schaffer, R. H.	260
Schall, W. C.	627
Scheer, W. E.	208
Scheh, E. C.	209
Scheid, P. M.	271
Scherer, F. M.	599
Schmidt, P. S.	853
Schoen, S. H.	210
Scholtz, C. G.	211
Schott, S.	405
Schubert, A. E.	17
Scott, W.	790
Seares, A. N.	628
Secrist, H. A.	408
See, J. A.	212
Settelmair, R. G.	213
Shapero, A.	626; 629
Sheehan, R. M.	855
Shepard, H. A.	74; 409
Shiff, R.	630

Shotzberger, M. L.	214
Shubik, M.	215
Sidebottom, J. H.	791
Siegelman, M.	410
Silverman, M.	632
Simon, H. A.	216; 411; 633
Simon, L. E.	412; 856
Simonds, R. H.	217
Sims, E. R.	413
Singer, H. A.	218
Sisson, A. L.	857
Sizelove, O. J.	219
Skifter, H. R.	414
Slattery, T. B.	469
Slowter, E. E.	792
Smith, R. M.	220
Sobczak, T. V.	634; 635
Solem, A. R.	221
Solliday, A. L.	222
Sonnabend, R. P.	223
Spencer, S. A.	637
Spillane, C. F.	224
Spivey, W. A.	18
Sprague, P. A.	858
Squires, C. H.	638
Stafford, P. M.	75

Stagg, G. W.	859
Stalker, G. M.	281
Stanley, J. D.	225
Starr, C.	76
Steger, W. A.	141; 516; 781
Stegner, C. B.	793
Steinfeld, R. C.	794
Stephenson, H. M.	416
Stessin, L.	417
Stevens, R.	77
Stevenson, E. P.	418
Stewart, L. A.	125
Stewart, N.	226
Stillson, P.	419
Stoddard, E. L.	860
Stoller, D. S.	639
Stoltz, R. E.	420
Stolze, W. J.	795
Storer, N. W.	421
Stover, C. F.	227
Stroud, P. V.	228
Sullivan, A. M.	640
Sullivan, D. J.	229
Suojanen, W. W.	181
Swager, W. L.	422; 423; 797
Swann, W. F. G.	78

Tait, R.	839
Tangerman, E. J.	79; 80; 81; 230
Taylor, E. K.	231
Taylor, J. W.	232
Taylor, R. B.	798
Taylor, W. S.	641; 642
Thayer, R. W.	173
Thomas, D.	236
Thompson, R. E.	800
Thompson, S.	801; 802
Thompson, V. A.	424
Thompson, V. B.	644
Thorner, M. W.	82
Tomb, J. O.	804
Tongberg, C. O.	237
Torpey, W. G.	861; 862
Trader, W. D.	425
Trageser, D. A.	377
Travis, I.	426
Trego, J. W.	253
Tregoe, B. B.	163
Tripician, J. F.	239
Trotter, C. H.	240
Tucker, S. A.	645; 646
Tupac, J. D.	555
Turck, F. B.	427

Turner, H. S.	428
Tyler, C.	241; 242; 243; 244
Uhl, K. P.	647
Urwick, L. F.	429
VanDorn, H. B.	430
VanHorn, R. L.	639
Vaughan, W. S.	563
Verity,	138
Verman, H.	548
Vernon, H. C.	83
Vervalin, C. H.	246
Villers, R.	648; 808
Vlamos, J.	247
Wadel, L. B.	431
Wagner, G. L.	863
Walker, M. R.	721; 722; 789
Walkup, L. E.	84
Walter, F.	432
Walton, D. G.	433
Walton, E.	434; 435
Waring, M. E.	809
Waterman, P.	649
Weiffenbach, J. F.	436
Weinwurm, G. F.	650
Weiss, E. B.	437
Welker, E. L.	651

Weller, R.	810
Wellford,	138
White, C. M.	85
White, D. R. J.	811
White, J. C.	19
Whitney, J. F.	864
Whittington, G. A.	438
Wickstrom, L.	248
Wiebenson, W.	607
Wikstrom, W. S.	249; 250
Williams, E. H.	251
Williams, L. A.	86
Williams, V. Z.	812
Williamson, M. A.	87; 252; 439; 440; 441; 442; 443; 813; 814; 815; 816
Williamson, M. H.	444
Wilson, L. D.	548
Wilson, W. K.	19
Wiora, A. P.	253
Wittner, H. M.	817
Wolever, C. R.	254
Womach, R. M.	255
Wood, K. R.	818
Wright, E.	256
Wright, J. O.	819
Wright, M.	257

Wyatt, J. L.	445
Wynne, B. E.	652
Yale, J. P.	820
Yarnall, D. R.	258
Yeamans, W. H.	446
Yoder, D.	653
Young, J. L.	447
Young, L. H.	821
Young, R.	704
Zack, E. R.	259; 449
Zager, R.	260
Zagorski, H. J.	818
Zalesnik, A.	261
Zang, T.	701
Zearfoss, L. F.	262
Zink, K. W.	111
Zweier, P.	450

SECTION IX

SUBJECT INDEX

AFSC (Air Force Systems Command)	451; 452
BMEWS (Ballistic Missile Early Warning System)	791
Change Controls See also: Network Analysis, Configuration Control	1; 4; 10; 11; 15; 16; 17; 19; 20; 725
Company Goals	124; 249; 332; 340; 353; 401; 780; 784; 848
Configuration Control See: Network Analysis, Configuration Control	
Contracts, Team	461; 518; 566
Creativity	27; 29; 34; 40; 42; 43; 45; 48; 51; 58; 72; 74; 75; 78; 80; 81; 84; 86
Creativity, Barriers	32; 37; 46; 60; 66
Creativity, Environment	23; 46; 54; 56; 62; 72; 82; 83; 87; 264; 814; 816
Creativity, Evaluation	31; 47; 50; 329
Creativity, Management	26; 29; 43; 44; 46; 49; 53; 55; 64; 68; 69; 70; 76; 77; 83; 85; 264; 266; 270; 281; 345; 383; 391; 445; 827
Creativity, Stimulation	21; 22; 24; 25; 26; 33; 35; 38; 41; 49; 52; 59; 61; 63; 64; 65; 68; 71; 79
Creativity, Techniques	28; 30; 31; 35; 36; 39; 44; 53; 57; 67; 73; 88
CPM (Critical Path Method) See also: Network Analysis	465; 483; 485; 509; 515; 585; 635; 652; 655; 677; 757; 760; 794; 821

CPM, Activity Cost	482
CPM, Planning	462; 546; 659; 676; 704; 721 722; 731; 732; 742; 743
CPM, Scheduling	538; 546; 548; 578; 636; 659; 673; 676; 704; 705; 707; 721; 722; 732; 748; 789; 793
Cybernetics	457
Data Processing	490; 491; 495; 511; 535; 593; 686
Data Processing, Managerial Decisions	453; 467; 471; 474; 513; 524; 528; 540; 545; 620; 622; 650; 727; 771
Data Processing, Scientific Research	278; 388
Decision, Games, Models Simulation	215; 399; 411; 476; 487; 516; 525; 530; 543; 555; 568; 579; 600; 627; 643; 735; 781
Decisions, Managerial See also: Pert, Decisions	453; 460; 463; 465; 470; 477; 479; 487; 533; 559; 575; 576; 587; 599; 633; 648; 656; 723; 734; 795
Decisions, Uncertainty	14; 477
Econometrics	460
Engineering, Organization	276; 282; 290; 291; 293; 299; 304; 305; 314; 316; 321
Engineering Research, Administration	269; 296; 311; 314; 320; 323; 333; 337; 341; 346; 347; 351; 352; 358; 377; 379; 380; 398; 402; 403; 414; 415; 429; 438; 439; 441; 447; 752; 772
Engineering Research, Cost Control See also: Research and Development, Cost Control	266; 302; 316; 328; 333; 347; 358; 375; 395; 726
Engineering Talent See also: Scientific Talent, Planning Engineering Work	266; 269; 298; 312; 321; 361; 364; 366; 369; 384; 394; 403; 419; 426; 431; 443; 822; 823; 824; 829; 833; 845; 847; 849; 857; 860; 861; 863; 864

Engineers, Administration	286; 289; 291; 296; 300; 307; 309; 310; 312; 317; 321; 324; 335; 339; 357; 365; 366; 372; 374; 384; 400
Engineers and Managers, Conflict	282; 298; 303; 322; 336; 813
Games See: Decisions, games, models, simulation Management Training Programs, games and simulation	
HEPP (Hoffman Evaluation Program Procedure)	515; 798
Information Systems See: Systems, Information	
Industrial Engineer, Product Development See also: Management Training, Industrial Engineers	718; 828
IPC (Integrated Planning and Control)	804
LESS (Least Cost Estimating and Scheduling)	635; 696
LOB (Line of Balance)	463; 691
Managers, Selection	148; 149; 183; 186; 192; 229; 232; 237; 262; 308; 348; 362
Management, Engineers and Scientists	279; 283; 285; 315; 323; 328; 340; 348; 354; 356; 362; 370; 393; 413; 432; 433; 450; 852
Management Development	116; 127; 129; 131; 135; 138; 142; 147; 154; 157; 158; 163; 164; 169; 172; 185; 186; 198; 206; 218; 233; 240; 256; 257

Management Science	90; 102; 109; 110; 112; 132; 140; 144; 170; 172; 179; 189; 211; 213; 216; 227; 241; 242; 243; 244; 255; 258; 260; 354; 653; 828
Management Training	89; 95; 100; 105; 113; 128; 134; 139; 143; 151; 156; 166; 173; 214; 226; 246; 261
Management Training, Engineers	97; 107; 108; 111; 146; 184; 187; 188; 193; 201; 207; 219; 222; 230; 235; 238; 252
Management Training, Industrial Engineers	184; 193
Management Training, Self-Taught	89; 99; 113; 116; 133; 144; 146; 152
Management Training, Techniques	98; 114; 118; 131; 150; 153; 168; 171; 181; 183; 191; 196; 203; 205; 209; 220; 221; 245; 247; 248
Management Training Programs, Development	91; 101
Management Training Programs, Evaluation	93; 96; 103; 104; 106; 119; 121; 126; 130; 155; 159; 160; 165; 174; 176; 177; 182; 190; 195; 224; 228; 231
Management Training Programs, Examples	120; 137; 175; 178; 180; 197; 210; 212; 234; 239; 249; 253; 259
Management Training Programs, Games and Simulation See also: Decisions, Games, Models, Simulation	122; 123; 125; 136; 141; 167; 199; 215; 221; 225; 250; 251; 399
Management Training Programs, In-Plant	124; 162; 194; 254
Management Training Programs, Necessity	95; 99; 102; 124; 134; 147; 166; 181; 200; 202; 208; 217; 223; 236; 249
Management Training Programs, Teaching Machines	115; 117

Management Training Programs, University	92; 134; 161; 204
Managerial Creativity	94; 139; 145
MAPS (Multivariate Analysis and Prediction of Schedules)	818
Milestone Technique	347; 588; 589; 691
Models See: Decisions, Games, Models, Simulation	
Network Analysis See also: CPM, LESS, PACE, PEP, PERT, RAMPS, RITE, SCANS, WSPACS	616; 634; 635; 655
Network Analysis, Configura- tion Control	2; 7; 10;
Network Analysis, Resource Allocation	480; 615; 684; 707; 758; 768; 836
Network Analysis, Scheduling	484; 489; 509; 553; 554; 557; 615; 634; 661; 673; 682; 684; 697; 698; 736; 758
Operations Research, Engineering Management	346
Operations Research, Planning See: Planning, Operations Research	
PAAC (Program Analysis Adaptable Control)	553
PACE (Performance and Cost Evaluation)	604
PEP (Program Evaluation Procedures)	456; 515; 526; 550; 747

PERT (Program Evaluation and Review Technique)	458; 465; 475; 483; 494; 502; 505; 515; 539; 542; 550; 551; 584; 585; 592; 602; 632; 635; 691; 738; 821
PERT, Activity	480; 481; 527; 694
PERT, Administration	277
PERT, Case Study	468
PERT, Configuration Control	2
PERT, Cost Systems	492; 601
PERT, Decisions	800
PERT, Design	464
PERT, Evaluation	456; 473; 512; 520; 526; 559; 580; 597; 606; 608; 644
PERT, Manpower Scheduling	859
PERT, M-H Aero	553; 625; 638
PERT, Modifications	2; 10; 462; 507; 508; 553; 561; 569; 615; 616
PERT, NASA	492; 567; 590; 601
PERT, NAVY	501; 522; 588; 589; 609; 649; 689
PERT, Planning See: Planning, PERT	
PERT, Research and Development Bids See: Research and Development Bids	
PERT, Resource Allocation	768
PERT, Simplification	472; 506; 688; 730; 774; 803
PERT, Subcontracts	466; 638
PERT, Teaching	248
PLANNET (Planning Network)	515; 616

Planning, Engineering Work	291; 299; 311; 312; 333; 341; 346; 347; 351; 358; 365; 366; 373; 380; 389; 390; 395; 404; 415; 425; 430; 655; 699; 711; 733; 769; 771; 806; 808; 831
Planning, Long-range	562; 617; 621; 663; 671; 690; 710; 716; 719; 720; 728; 750; 770; 775; 776; 779; 781; 788; 795; 801; 802; 805; 820
Planning, Operations Research	478; 479; 499; 504; 528; 564; 583; 604; 613; 618; 619; 627; 715; 761; 762; 828
Planning, PERT	454; 509; 570; 571; 586; 603; 606; 737; 747; 751; 767; 768
Planning, Product Development	657; 678; 681; 692; 700; 718; 729; 739; 746; 752; 754; 764; 780; 786; 790; 809; 813; 815; 816; 819
Planning, Project	664; 665; 669; 670; 685; 687; 696; 697; 699; 708; 717; 736; 743; 744; 746; 753; 755; 759; 760; 771; 774; 787; 797; 804; 811
Problem-solving See: Decisions	
Product Development See: Planning, Product Development	
Programming, Chance Constraints	3; 5; 6; 18
Programming, Critical Path See: CPM, Planning CPM, Scheduling	
Programming, Dynamic	459
Programming, Integrated	472
Programming, Linear	460; 465; 467; 476; 537; 575; 779

Programming, Parametric	547
Programming, Team Decisions	388; 411
Programming, Uncertainty	8; 9; 12; 13;
Project Champion	7
Project Comet	631
Project Management	307; 680; 817
RAMPS (Resource Allocation and Multi-project Scheduling)	515; 615; 758
Ratio Analysis	645; 646
Research, Cooperative	674; 675
Research, Manpower Require- ments	766; 836; 859; 861; 864
Research, Operational Support	469
Research Administrator	296; 307; 309; 313; 336; 337; 338; 342; 348; 363; 405
Research Appraisal	270; 272; 275; 353; 378; 387; 396; 420; 666; 668; 687; 693; 709; 737; 749; 765; 777; 782; 784; 792; 796; 848
Research Environment, Organization	274; 282; 284; 290; 293; 299; 305; 312; 314; 316; 321; 327; 330; 331; 332; 350; 359; 364; 367; 373; 381; 382; 386; 416; 417; 421; 424; 425; 434; 436; 830; 837; 838; 840; 846
Research Environment, Physical	264; 330; 331; 349; 416
Research Organizations	276; 293; 321; 327; 359
Research Services	349; 442
Research Workers, Administration	266; 269; 274; 280; 282; 284; 305; 308; 309; 311; 313; 324; 332; 357; 361; 369; 372; 391; 825; 826; 832; 834; 844

Research Workers, Motivation	263; 287; 290; 292; 294; 298; 319; 322; 326; 329; 343; 345; 355; 364; 366; 368; 382; 391; 392; 394; 397; 406; 408; 409; 410; 428; 435; 445; 448; 449; 835; 841; 842
Research Workers, Organization	274; 304; 327; 332; 350; 364; 367; 373; 381; 382; 383; 394; 856
Research Workers, Skill Register	271; 385
Research Workers, Training	273; 297; 344; 360; 399; 407; 444; 845; 855
Research and Development, Bids	570; 703
Research and Development, By-products	683; 702
Research and Development, Cost Analysis See also: CPM, Activity Cost; Engineering Research Cost Control PERT, Cost Systems	652; 658; 662; 667; 687; 695; 706; 712; 713; 714; 716; 724; 725; 729; 753; 763; 783; 785; 812
Research and Development Military See also: AFSC, BMEWS, PERT Navy Systems, Weapons, WSPACS	660; 685; 727; 740; 756
Research and Development Program Evaluation See: PEP, PERT	
Resource Allocation See also: Network Analysis, Resource Allocation	781
RITE (Rapid Information Technique for Evaluation)	2; 515
SCANS (Scheduling and Control by Automated Network System)	10; 507; 508; 515; 519; 635

Scientific Research, Administration	55; 70; 265; 268; 288; 295; 301; 306; 318; 320; 323; 325; 337; 341; 358; 371; 376; 389; 390; 398; 401; 418; 701; 767; 772; 850; 853
Scientific Research, Organization	267; 299; 304; 314; 334; 386; 412; 421; 422; 423; 427; 440; 446; 679; 778
Scientific Talent	269; 293; 343; 361; 364; 421; 437; 835; 843; 845; 852; 854; 857
Simulation See: Decision, Games, Models, Simulation Management Training Programs, Games and Simulation	
SVS (Schedule Visibility System)	514
Systems, Administrative	490; 500; 510; 515; 521; 569; 591; 595; 596; 605; 608; 627; 628; 640; 647; 653
Systems Conferences	451; 612
Systems, Core Concept	565
Systems, Design and Organization	496; 497; 498; 530; 535; 536; 553; 562; 577; 581; 598; 610; 611; 613; 626; 629; 634; 647; 649; 651
Systems, Information	2; 7; 10; 18; 453; 483; 488; 495; 511; 517; 555; 570; 571; 573; 592; 594; 637; 639; 684; 723; 734; 818
Systems, Intracompany	518; 544
Systems, Management Control	503; 513; 514; 524; 530; 534; 541; 543; 552; 553; 560; 564; 572; 574; 582; 598; 603; 612; 618; 623; 624; 631; 645; 646; 650; 773; 791
Systems, Office	474; 493; 532; 549; 630

Systems, Selection	523
Systems, Simplification	641; 642
Systems, Synthesis	459; 486; 490; 497; 498; 556; 614
Systems, Weapons	455; 464; 500; 521; 529; 544; 550; 572; 599; 620; 629; 682; 761; 762
Uncertainty See: Decision, Uncertainty Programming, Uncertainty	
WSPACS (Weapon System Planning and Control System)	515; 521; 761; 762